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SCHOOL SERIES

# PRIMAR ARITHMETIC



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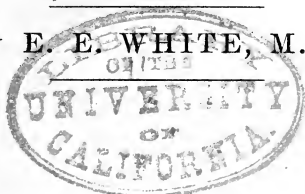


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A  
PRIMARY  
ARITHMETIC,  
UNITING  
ORAL AND WRITTEN EXERCISES  
IN A  
NATURAL SYSTEM OF INSTRUCTION.

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BY E. E. WHITE, M. A.



CINCINNATI:  
WILSON, HINKLE & CO.  
PHILA: CLAXTON, REMSEN & HAFELFINGER.  
NEW YORK: CLARK & MAYNARD.

# WHITE'S GRADED-SCHOOL SERIES.

COMPLETE IN THREE BOOKS.

## *I. PRIMARY ARITHMETIC.*

## *II. INTERMEDIATE ARITHMETIC.*

## *III. COMPLETE ARITHMETIC.*

675-51

### PLAN OF PRIMARY ARITHMETIC.

*Lessons I to XI* develop the idea of numbers from one to ten and combine groups of objects.

*Lessons XI to XX* teach the Addition and Subtraction of numbers—results not exceeding ten.

*Lessons XX to XXIX* teach the Addition and Subtraction of numbers—results not exceeding fifty.

*Lessons XXX to XLII* teach the Addition of numbers to amounts not exceeding one hundred.

*Lessons XLIII to LII* teach the Subtraction of numbers—minuend in Oral Exercises not exceeding one hundred.

*Lessons LII to LXXIII* teach the Multiplication of numbers—product in Written Exercises not exceeding one thousand.

*Lessons LXXIII to XC* teach the Division of numbers—dividend in Written Exercises not exceeding one thousand.

*Lessons XC to XCII* inclusive contain a General Review.

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Entered, according to Act of Congress, in the year 1868, by

WILSON, HINKLE & CO.,

In the Clerk's Office of the District Court of the United States, for the  
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ELECTROTYPED AT THE FRANKLIN TYPE FOUNDRY, CINCINNATI.

## PREFACE.

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THE true method of imparting to a child a clear comprehension of the value of numbers, the foundation of arithmetical knowledge, consists of three steps, viz.: 1. The perception of numbers represented by objects in sight. 2. The conception of numbers applied to objects not in sight. 3. The conception of numbers not applied to objects. A knowledge of the elementary combinations of numbers is best communicated in the same manner.

A faithful observance of this *natural order* constitutes one of the characteristic features of this first book in arithmetic. Abstract numbers and operations are reached, in practice as well as in theory, as the final step. The plan every-where observed is, first, Physical Objects (*in sight or represented by pictures*); secondly, Concrete Numbers; and, thirdly, Abstract Numbers. In this and other evident features, the book is a practical embodiment of the simplest and most vital principles of the inductive method of instruction.

But the distinguishing feature of the book, as well as of the Series of which it forms a part, is the *complete UNION of Mental (Oral) and Written Arithmetic*. This is secured, not by scattering a few miscellaneous slate exercises through the work, but by making every oral exercise preparatory to a written one, and by uniting both as the essential complements of each other. Slate and blackboard exercises are introduced at the very beginning of the course, and are continued, increasing in number and difficulty, to the end. Each lesson gives the pupil something *to do*, as well as something *to study*.

Two other noticeable features of the book are the great variety of exercises—the object being to make the pupil *accurate* and *rapid* in combining small numbers—and their preëminently progressive character. Attention may also be called to the presentation of converse operations, as Addition and Subtraction, Multiplication and Division, in connection with each other, as well as separately; to the converse forms of the tables and their *non memoriter* character; and, also, to the superior typography, and the number, beauty, and utility of the illustrations.

It is hoped that these and other features will commend the work to all intelligent and progressive teachers.

*Columbus, Ohio, May, 1868.*

## SUGGESTIONS TO TEACHERS.

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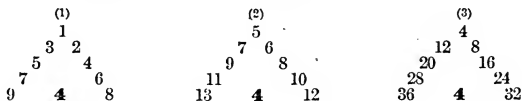
THE first thirty lessons of this book may be mastered in the earlier part of the primary course. To this end, the pupils should be advanced very slowly, and the exercises should be multiplied until great rapidity and accuracy are secured.

The first step in every new combination is to combine *groups of objects*, and, both in the pupil's study and the teacher's instruction, the pictorial illustrations should be supplemented by the use of *visible objects*, as counters, blocks, beans, etc. The teacher should also refer to other familiar objects in sight, as chairs, desks, slates, etc. Attention should be called to the difference between the pictures in the lessons, and the objects which they represent.

Pupils should be required to give answers in *complete sentences*. Suppose the question to be, "How many tops are 5 tops and 4 tops?" The answer should be, "5 tops and 4 tops are 9 tops." To secure rapidity, drills may occasionally be introduced in which only results are given, as "9 tops." Nothing is gained by requiring pupils to give *reasons* for answers to simple examples, and even problems which admit of a formal analysis should be solved briefly and concisely. See page 51.

The written exercises are designed to go hand in hand with the oral, and should be taught with equal thoroughness. They are so easy and progressive that but little explanation will be found necessary. They should not only be copied and performed by the pupils on their slates, but they should also be used as blackboard exercises. Such exercises are exceedingly valuable both as a means of awakening interest and of imparting skill in numerical calculations.

Blackboard exercises, affording a great variety of combinations, and requiring but little labor in copying, may be easily arranged. The following are given as illustrations:



By pointing successively to the figures in the oblique rows and to the figure between them, the first diagram will afford an excellent drill in adding or in multiplying, the "4," or any other figure in its place, being the number added or multiplied, as the case may be. The second diagram will afford a good exercise in subtraction, and the third in division.

# PRIMARY ARITHMETIC.

## LESSON I.

Touch your head. How many heads have you? How many chins? Hold up one hand. Hold up two hands.

How many fingers do I hold up? Hold up two fingers. Hold up one thumb. Hold up two thumbs.



How many eyes have you? How many cheeks? How many tongues? How many lips? How many feet?



How many nuts do you see in this picture? How many leaves? How many stems has each nut?

Bring me one block. Bring me two blocks. Take away one block.

How many blocks are left?

Hand me two books. Take one of them. How many books have I left? Make two marks on your slate.

Make the figure one on your slate, thus: 1.

Make the figure two on your slate, thus: 2.

Make the figure 2 two times.

## LESSON II.

TO TEACHERS.—Drill the pupils until they can tell the number of objects in each group, and combine the groups, *without counting*.

Hold up two fingers. Hold up two hands. How many fingers do I hold up? Hold up three fingers. Hold up two fingers.



Here is a picture of a dog. How many fore feet has he? How many hind feet? How many of his feet can you see?

Bring me two blocks. Bring me one more. How many blocks have I now? Take one block. How many blocks have I left? Make three marks on your slate.






How many acorns in each of these groups? How many in the third group more than in the first?



How many groups of rabbits do you see? How many rabbits in the first group? How many rabbits in the second group?

How many balls are   and ?

 and   are how many balls?

Make the figure three on your slate, thus: 3.

Make the figures 1, 2, 3.

## LESSON III.

How many fingers do I hold up on my right hand? How many on my left hand? How many on both hands? Hold up four fingers.



Here is a picture of a fine ox. How many horns has he? How many ears? How many legs? How many feet?









Bring me four blocks. Take one of them. How many blocks have I now? Make three marks on your slate. Make four marks.



How many groups of pears do you see? How many pears in the first group? How many in the second group? How many in the third group? How many pears in the second group more than in the first?



How many flowers in each of these groups? How many more flowers in the second group than in the first?

How many blocks are    and  ?  
  and   are how many blocks?

How many balls are  and    ?

Make the figure four, thus:  $\text{4}$ . Make the figure 4 four times. Make 1, 2, 3, 4.

To TEACHERS.—Multiply these exercises until the pupils can add the groups instantly, *without counting*.

## LESSON IV.

How many fingers do I hold up on my right hand? How many on my left hand? How many on both hands? Hold up four fingers. Hold up five fingers.



How many geese do you see in this picture? How many goslings? If two goslings should go away, how many would be left?

Place four blocks on the table. Add one block more. How many blocks are there now? Take away two blocks. How many blocks are left?













How many groups of tops are here? How many tops in the first group? How many in the third? How many in the second?



How many horses in each of these groups? How many in the first group more than in the second?

Place three blocks on the table. Add two blocks more. How many blocks are there?

How many balls are    and  ?   
     and  are how many balls?

Make the figure five, thus: 5. Make the figure 5 five times. Make 1, 2, 3, 4, 5.

## LESSON V.

How many fingers do I hold up on my right hand? How many on my left hand? How many on both hands? Hold up five fingers. Hold up six fingers.



How many little chickens do you see in this picture? How many are near the old hen's beak? How many are near her right wing? How many in both groups?

Place five blocks on the table. Add one block more. How many blocks on the table now? Take away three blocks. How many blocks are left?



Here are how many groups of girls? How many girls are in the first group? How many in the second? How many more girls in the second group than in the first?

How many kittens in each group below? How many more in the first group than in the second?



How many stars are  $\ast \ast \ast \ast \ast$  and  $\ast$ ?  $\ast \ast \ast \ast$  and  $\ast \ast$  are how many stars? How many stars are  $\ast \ast$  and  $\ast \ast$ ?

Make the figure six, thus: 6. Make 1, 2, 3, 4, 5, 6. How many figures have you made?

## LESSON VI.

How many fingers do I hold up on my right hand? How many on my left hand? How many on both hands?



Hold up six fingers. Hold up seven fingers.



Here is a bird's nest. How many eggs are in it? If the bird should lay one egg more, how many eggs would there then be in the nest?

Place six blocks on the table. Add one block more. Six blocks and one block are how many blocks? Take away two blocks. How many blocks are left on the table?



Here are two groups of beautiful acorns. How many acorns in the first group? How many in the

second group? How many more in the second group than in the first?



How many pears in each of these groups? How many more in the first than in the second? If two pears should be taken from the first group, how many would be left?

How many blocks are  and ?  and  are how many blocks?

Make the figure seven, thus:  $\nearrow$ . Make the figure 7 seven times. Make 1, 2, 3, 4, 5, 6, 7.

## LESSON VII.

How many fingers do I hold up on my right hand? How many on my left hand? How many on both hands?



Hold up eight fingers. Put down two fingers. How many fingers are now up?



Here are two fine rabbits. How many ears have both of them? How many legs has each rabbit? How many legs have they both?

Place four blocks on the table. Add four blocks more. How many blocks are now on the table?

Place eight blocks on the table. Take away one block. How many blocks are left? Take away two blocks more. How many blocks are now left?



How many boys are in the first group? How many in the second? How many in the third? How many boys in the third group more than in the first?



How many tops are spinning in the first group? How many in the second? How many in the first more than in the second? If two tops were taken from the first group, how many would be left?

How many balls are    and  ?    and    are how many balls?

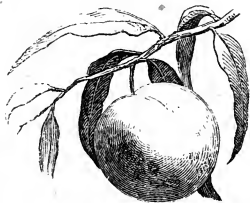
Make the figure eight, thus: 8. Make 1, 2, 3, 4, 5, 6, 7, 8. How many figures have you made?

## LESSON VIII.

How many fingers do I hold up on my right hand? How many on my left hand? How many thumbs do I hold up? How many fingers and thumbs do I hold up on both hands?



How many joints in each of your fingers? (*Three joints.*) How many joints in two fingers? How many joints in three fingers?



Here is a nice peach. How many leaves are on the limb? If there were two leaves more, how many would there then be? If you should pick two leaves, how many would be left on the limb?

Place seven blocks on the table. Add two blocks more. Seven blocks and two blocks are how many blocks? Take three blocks. How many blocks are left?



How many quails in each group? How many in the second group more than in the first?



Here are two rows of books. How many books in the first row? How many in the second? How many more books in the second row than in the first?

How many stars are  $\ast \ast \ast \ast \ast \ast$  and  $\ast \ast$ ?  $\ast \ast \ast$  and  $\ast \ast \ast \ast \ast \ast$  are how many stars? How many stars are  $\ast \ast \ast \ast$  and  $\ast \ast \ast \ast \ast$ ?

Make the figure nine, thus: 9. Make the figure 9 nine times. Make 1, 2, 3, 4, 5, 6, 7, 8, 9.

## LESSON IX.

How many fingers do I hold up?  
How many thumbs? How many fin-  
gers and thumbs counted together?



Here is a nice fan, and a pair of gloves. How many fingers has each glove? How many fingers have both gloves? How many folds has the fan? Count them.

How many nails are on your right hand? How many nails on your left hand? How many on both hands?



How many keys in the first group? How many in the second? How many in the third? How many more keys in the third group than in the first?



How many poplar trees in the first row? How many in the second row? How many more trees in the first row than in the second?



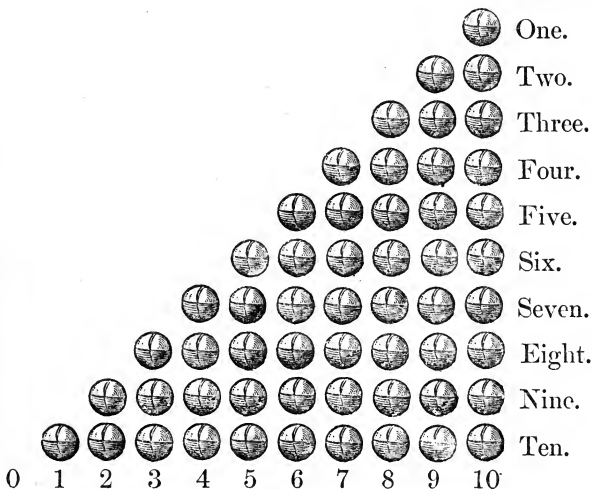
Place ten blocks in a row. Take away five blocks. How many blocks are left? Take away five more. How many blocks are now left?

Make the character naught, thus: 0. This stands for *not any* or *nothing*. Make ten, thus: 10. Make 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.

## LESSON X.

Count the balls in each row from left to right and from right to left. Count also the rows up and down.

Naught.



How many balls are in the lowest row? How many in the third row from the top? How many in the fifth row? How many in the seventh? How many horizontal rows are there? How many vertical rows?

To TEACHERS.—Make this table on the blackboard, using circles, squares, triangles or other simple figures, and drill the pupils in *rapid counting*, thus (pointing to the figures): One; one, two; two, one; one, two, three; three, two, one, etc.—each row being counted in two directions. Count first the horizontal rows and then the vertical. The drill should be continued until great rapidity and accuracy are secured.

## LESSON XI.

## ORAL EXERCISES.

TO TEACHERS.—The object of this and the next eight lessons is to teach the addition and subtraction of numbers not exceeding *ten*. The first step is to add and subtract groups of *visible objects*, or objects represented by pictures; the second, to add and subtract groups of objects *not in sight* (concrete numbers); and the third, to add and subtract the corresponding *abstract numbers*. The exercises in each step should be multiplied until the results are given by the pupils instantly, *without counting*. The tables may be recited thus: 0 and 1 are 1; 1 and 1 are 2; 2 and 1 are 3, etc.; and 1 from 1 leaves 0; 1 from 2 leaves 1, etc.



1. Here is a bird's nest and here is one. One nest and one nest are how many nests? Two nests and one nest are how many nests?

2. One bird and one bird are how many birds? Two birds and one bird are how many birds?

How many are 1 and 1? 2 and 1?



3. John caught three fishes, and then he caught one more. How many did he catch in all? Four fishes and one fish are how many fishes?

How many are 3 and 1? 4 and 1?



4. Charles has picked five fine clusters of cherries and John one. Five clusters and one cluster are

how many clusters? Six clusters and one cluster?

How many are 5 and 1? 6 and 1?

5. If Charles should give one of his clusters to Jane, how many would he have left? One cluster from five clusters leaves how many clusters?

One from 5 leaves how many? 1 from 6?



6. Seven acorns and one acorn are how many acorns? Eight acorns and one acorn?

How many are 7 and 1? 8 and 1?

7. Eight boys and one boy are how many boys? Nine boys and one boy are how many boys? One boy from nine boys leaves how many?



8. How many tops are 5 tops and 1 top? 6 tops and 1 top? 3 tops and 1 top? 8 tops and 1 top? 7 tops and 1 top? 9 tops and 1 top?

9. One top from 3 tops leaves how many tops? 1 top from 5 tops? 1 top from 7 tops? 1 top from 8 tops? 1 top from 6 tops? 1 top from 10 tops?



*How many are*

0 and 1?  
1 and 1?  
2 and 1?  
3 and 1?  
4 and 1?  
5 and 1?  
6 and 1?  
7 and 1?  
8 and 1?  
9 and 1?

*Take*

1 from 1.  
1 from 2.  
1 from 3.  
1 from 4.  
1 from 5.  
1 from 6.  
1 from 7.  
1 from 8.  
1 from 9.  
1 from 10.

10. How many are 2 and 1? 4 and 1? 6 and 1?  
8 and 1? 9 and 1? 3 and 1? 5 and 1? 7 and 1?

11. One from 3 leaves how many? 1 from 5?  
1 from 6? 1 from 7? 1 from 9? 1 from 10?  
1 from 8? 1 from 4?

## LESSON XII.

### ORAL EXERCISES.

1. How many fingers are one finger and one finger? One finger and two fingers?



2. How many clusters of grapes are one cluster and two clusters? Two clusters and two clusters?  
How many are 1 and 2? 2 and 2?



3. Jane has picked three violets and Kate two: how many violets have both picked? Four violets and two violets are how many violets?

How many are 3 and 2? 4 and 2?

4. Two violets from five violets leave how many violets? Two violets from six violets?

Two from 5 leaves how many? 2 from 6?



5. Here are five lambs, and here are two more. How many lambs do you see?

6. Two lambs from six lambs leave how many lambs? Two lambs from seven lambs?

Two from 6 leaves how many? 2 from 7?



7. How many robins do you see? Six robins and two robins are how many robins? Seven robins and two robins?

How many are 6 and 2? 7 and 2?

8. How many do two birds from eight birds leave? Two birds from nine birds?

Two from 9 leaves how many? 2 from 8?



9. Here are eight shells in one group and two shells in another. How many are eight shells and two shells?

How many are 8 and 2? 7 and 2?

10. Jane found ten shells and gave two of them to Willie: how many had she left?

Two from 10 leaves how many? 2 from 9?



*How many are*

0 and 2?  
1 and 2?  
2 and 2?  
3 and 2?  
4 and 2?  
5 and 2?  
6 and 2?  
7 and 2?  
8 and 2?

*Take*

2 from 2.  
2 from 3.  
2 from 4.  
2 from 5.  
2 from 6.  
2 from 7.  
2 from 8.  
2 from 9.  
2 from 10.

11. How many are 2 and 2? 4 and 2? 3 and 2?  
5 and 2? 6 and 2? 8 and 2? 7 and 2?

12. Two from 4 leaves how many? 2 from 3?  
2 from 5? 2 from 7? 2 from 6? 2 from 8?  
2 from 10? 2 from 9?

### WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)		(1)	(2)	(3)	(4)	(5)	(6)
	2	2	2	2	2	2		1	2	2	1	1	2
Add	<u>2</u>	<u>4</u>	<u>6</u>	<u>8</u>	<u>7</u>	<u>5</u>		<u>1</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>
	(1)	(2)	(3)	(4)	(5)	(6)		1	2	2	1	2	1
From	4	6	8	10	9	7	Add	<u>1</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>2</u>
Take	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>		<u>1</u>	<u>2</u>	<u>1</u>	<u>4</u>	<u>3</u>	<u>2</u>

TO TEACHERS.—These exercises should be copied by the pupils on their slates, added, and the results properly written below. They, or similar exercises, should also be written on the blackboard, and the class drilled on them until the results are given *instantly*. In adding the columns at the right, *the results only* should be named; as, (Ex. 3) 1, 3, 5, 7, 9.

## LESSON XIII.

### ORAL EXERCISES.

1. How many blocks are one block and two blocks? One block and three blocks?



2. How many horses do you see? Two horses and three horses are how many horses? Three horses and three horses?

3. Two marbles and three marbles are how many marbles? Three marbles and three marbles?

How many are 2 and 3? 3 and 3?

4. A man has five horses: if he sell three of them, how many will he have left?

Three from 5 leaves how many? 3 from 6?



5. How many fawns are in these two groups? Five fawns and three fawns are how many fawns?

6. Four squirrels are running on a fence and three are on a tree. How many are four squirrels and three squirrels? Five squirrels and three squirrels?

How many are 4 and 3? 5 and 3?



7. Six kittens and three kittens are how many kittens? 7 kittens and 3 kittens?

8. How many boys are six boys and three boys? Seven boys and three boys?

How many are 6 and 3? 7 and 3?

9. Three kittens from nine kittens leave how many? Three kittens from ten kittens?

Three from 9 leaves how many? 3 from 10?



10. How many pears are 7 pears and 3 pears? 6 pears and 3 pears? 5 pears and 3 pears? 4 pears and 3 pears? 3 pears and 3 pears?

11. How many caps are 1 cap and 3 caps? 3 caps and 3 caps? 5 caps and 3 caps? 4 caps and 3 caps? 6 caps and 3 caps? 7 caps and 3 caps?

12. Three pears from 4 pears leave how many pears? 3 pears from 6 pears? 3 pears from 8 pears? 3 pears from 10 pears? 3 pears from 7 pears?



*How many are*

0 and 3?

1 and 3?

2 and 3?

3 and 3?

4 and 3?

5 and 3?

6 and 3?

7 and 3?

*Take*

3 from 3.

3 from 4.

3 from 5.

3 from 6.

3 from 7.

3 from 8.

3 from 9.

3 from 10.

13. How many are 1 and 3? 3 and 3? 2 and 3? 5 and 3? 4 and 3? 7 and 3? 6 and 3?

14. How many are 3 and 2? 3 and 1? 3 and 4? 3 and 5? 3 and 6? 3 and 3? 3 and 7?

15. Three from 4 leaves how many? 3 from 6? 3 from 5? 3 from 8? 3 from 7? 3 from 10? 3 from 9?

16. Three from 5 leaves how many? 2 from 5? 3 from 9? 2 from 9? 3 from 8? 2 from 8? 3 from 10?

### WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)		(1)	(2)	(3)	(4)	(5)	(6)
	3	3	3	3	3	3		3	1	3	2	2	3
Add	<u>2</u>	<u>4</u>	<u>5</u>	<u>7</u>	<u>6</u>	<u>3</u>		3	3	1	2	1	1
								1	1	0	3	3	2
	(1)	(2)	(3)	(4)	(5)	(6)		1	3	3	2	1	1
From	5	7	8	10	9	6	Add	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>
Take	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>							

## LESSON XIV.

## ORAL EXERCISES.

1. How many fingers are one finger and three fingers? One finger and four fingers?



2. Here are two rabbits, and here are four more. How many are two rabbits and four rabbits?

One and 4 are how many? 2 and 4?

3. If four of these six rabbits should run away, how many would be left? Four rabbits from six rabbits leave how many rabbits?

Four from 6 leaves how many? 4 from 6?



4. Henry has bought three pine-apples, and Jane four: how many pine-apples have they both?

5. How many oranges are three oranges and four oranges? Four oranges and four oranges?

Three and 4 are how many? 4 and 4?



6. How many acorns are five acorns and four acorns? Six acorns and four acorns?

7. How many are five marbles and four marbles? Six marbles and four marbles?

Five and 4 are how many? 6 and 4?

8. Nine robins are standing on a limb: if four should fly away, how many would be left?

9. Four robins from ten robins leave how many robins? Four robins from nine robins?

Four from 9 leaves how many? 4 from 10?



10. Here are two rows of trees. How many trees in both rows? How many are 3 trees and 4 trees? 5 trees and 4 trees? 6 trees and 4 trees?

11. How many are 2 doves and 4 doves? 4 doves and 4 doves? 6 doves and 4 doves? 5 doves and 4 doves? 3 doves and 4 doves?

12. Four trees from 6 trees leave how many trees? 4 trees from 8 trees? 4 trees from 10 trees? 4 trees from 7 trees? 4 trees from 9 trees?



*How many are*

0 and 4?

1 and 4?

2 and 4?

3 and 4?

4 and 4?

5 and 4?

6 and 4?

*Take*

4 from 4.

4 from 5.

4 from 6.

4 from 7.

4 from 8.

4 from 9.

4 from 10.

13. How many are 2 and 4? 4 and 4? 3 and 4? 5 and 4? 6 and 4?

14. How many are 4 and 1? 4 and 3? 4 and 5? 4 and 4? 4 and 2? 4 and 6?

15. Four from five leaves how many? 4 from 4? 4 from 6? 4 from 7? 4 from 9?

16. Four from 6 leaves how many? 4 from 8?  
3 from 8? 4 from 10? 3 from 10?

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WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)		(1)	(2)	(3)	(4)	(5)	(6)
	4	4	4	4	4	4		4	2	2	1	2	2
Add	<u>2</u>	<u>4</u>	<u>3</u>	<u>5</u>	<u>6</u>	<u>1</u>		<u>2</u>	<u>1</u>	<u>4</u>	<u>4</u>	<u>1</u>	<u>2</u>
	(1)	(2)	(3)	(4)	(5)	(6)		2	1	2	1	1	0
From	6	8	7	9	10	5	Add	<u>1</u>	<u>4</u>	<u>0</u>	<u>2</u>	<u>2</u>	<u>3</u>
Take	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>		<u>1</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>3</u>	<u>2</u>

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LESSON XV.

ORAL EXERCISES.

1. How many girls are one girl and five girls?  
Two girls and five girls?



2. How many are two palm trees and five palm trees? One palm tree and five palm trees?

How many are 1 and 5? 2 and 5?

3. A hunter saw six deer, and five of them ran away: how many deer were left?

4. Five deer from six deer leave how many deer?  
Five deer from seven deer?

Five from 6 leaves how many? 5 from 7?



5. Here are two groups of flies. How many flies are three flies and five flies? Four flies and five flies?

6. How many rabbits are three rabbits and five rabbits? Four rabbits and five rabbits?

How many are 3 and 5? 4 and 5?

7. Mr. Smith owns eight sheep: if he sell five of them, how many sheep will he have left?

Five from 8 leaves how many? 5 from 7?



8. Kate has five pears in one basket, and five in another: how many pears has she in both?

9. How many are four stars and five stars? Five stars and five stars?

10. Five pears from nine pears leave how many pears? Five pears from ten pears?

Five from 9 leaves how many? 5 from 10?



11. How many quails are 2 quails and 5 quails? 1 quail and 5 quails? 3 quails and 5 quails? 5 quails and 5 quails? 4 quails and 5 quails?

12. Five birds from 6 birds leave how many birds? 5 birds from 8 birds? 5 birds from 7 birds? 5 birds from 10 birds? 5 birds from 9 birds?



*How many are*

0 and 5?  
1 and 5?  
2 and 5?  
3 and 5?  
4 and 5?  
5 and 5?

*Take*

5 from 5.  
5 from 6.  
5 from 7.  
5 from 8.  
5 from 9.  
5 from 10.

13. How many are 1 and 5? 3 and 5? 2 and 5?  
4 and 5? 5 and 5?

14. How many are 5 and 2? 5 and 1? 5 and 3?  
5 and 5? 5 and 4?

15. Five from 5 leaves how many? 5 from 7?  
5 from 6? 5 from 8? 5 from 9? 5 from 10?

16. How many are 3 and 3? 4 and 4? 5 and 5?  
2 and 2? 4 and 3? 5 and 3? 7 and 3?

17. Two from 8 leaves how many? 4 from 8?  
5 from 8? 3 from 8? 3 from 9? 4 from 9?  
5 from 9? 2 from 9?

### WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)		(1)	(2)	(3)	(4)	(5)	(6)
Add	5	5	5	5	5	5		5	2	2	1	3	1
	2	5	4	1	3	0		1	1	1	5	1	3
								1	1	1	1	2	1
								2	1	3	1	1	2
From	7	10	9	6	8	5	Add	1	5	2	1	2	2
Take	5	5	5	5	5	5							

## LESSON XVI.

### ORAL EXERCISES.

1. Jane picked one nice cluster of cherries, and Harry picked six clusters: how many clusters did they both pick?



2. How many clusters are one cluster and six clusters? Two clusters and six clusters?

How many are 1 and 6? 2 and 6?

3. How many clusters of cherries will remain if you take six clusters from seven clusters? Six clusters from eight clusters?

Six from 7 leaves how many? 6 from 8?



4. Charles found three shells on the sea-shore, and John six: how many shells did both find?

5. How many pebbles are two pebbles and six pebbles? Three pebbles and six pebbles?

How many are 2 and 6? 3 and 6?

6. How many shells will remain if you take six shells from nine shells? Six shells from eight shells?

Six from 9 leaves how many? 6 from 8?



7. How many rabbits in each of these groups? How many are four rabbits and six rabbits? Three rabbits and six rabbits?

How many are 4 and 6? 3 and 6?

8. A hunter saw ten rabbits, and caught six of them: how many rabbits got away?

9. How many will remain if you take six marbles from ten marbles? Six marbles from nine marbles?

Six from 10 leaves how many? 6 from 9?



10. How many blocks are 2 blocks and 6 blocks? 1 block and 6 blocks? 3 blocks and 6 blocks? 4 blocks and 6 blocks?

11. How many pears are 1 pear and 6 pears? 3 pears and 6 pears? 2 pears and 6 pears? 4 pears and 6 pears?

12. Six blocks from 7 blocks leave how many blocks? 6 blocks from 6 blocks? 6 blocks from 8 blocks? 6 blocks from 10 blocks? 6 blocks from 9 blocks?

*How many are*

0 and 6?

1 and 6?

2 and 6?

3 and 6?

4 and 6?

*Take*

6 from 6.

6 from 7.

6 from 8.

6 from 9.

6 from 10.

13. How many are 1 and 6? 3 and 6? 4 and 6? 2 and 6? 6 and 1? 6 and 2? 6 and 4?

14. Six from 7 leaves how many? 6 from 8? 6 from 10? 6 from 9? 6 from 6?

15. How many are 4 and 3? 5 and 4? 3 and 6? 6 and 2? 4 and 5? 6 and 3? 5 and 3?

16. How many are 2 and 4? 3 and 6? 5 and 3? 4 and 4? 6 and 4? 3 and 4? 4 and 5?

17. Two from 6 leaves how many? 3 from 9? 5 from 10? 4 from 7? 4 from 9? 2 from 8? 3 from 10?

### WRITTEN EXERCISES.

(1)	(2)	(3)	(4)	(5)	(1)	(2)	(3)	(4)	(5)
6	6	6	6	6	6	1	1	1	2
Add 3	2	4	1	0	1	1	0	3	3
					0	6	4	3	2
(1)	(2)	(3)	(4)	(5)	2	1	3	2	1
From 9	8	10	7	6	Add 1	1	2	1	1
Take 6	6	6	6	6					

## LESSON XVII.

## ORAL EXERCISES.

1. How many pine-apples are one pine-apple and seven pine-apples? Two pine-apples and seven pine-apples?



2. A fruit dealer bought eight pine-apples, and sold seven of them: how many had he left?

3. Seven pine-apples from eight pine-apples leave how many pine-apples?

4. How many are two apples and seven apples? Two peaches and seven peaches? Two pears and seven pears? Two plums and seven plums?

How many are 1 and 7? 2 and 7?

5. Seven apples from eight apples leave how many apples? Seven apples from nine apples?

Seven from 8 leaves how many? 7 from 9?



6. Here are two rows of tops, and all are spinning. How many tops are three tops and seven tops? Two tops and seven tops?

7. If seven of these tops should stop spinning, how many would then be spinning? Seven tops from ten tops leave how many tops? Seven tops from nine tops?

Seven from 10 leaves how many? 7 from 9?

8. How many nuts are two nuts and seven nuts? Three nuts and seven nuts? Three cakes and seven cakes?

How many are 1 and 7? 2 and 7? 3 and 7?



9. How many crowns are 1 crown and 8 crowns? 2 crowns and 8 crowns?

10. How many girls are one girl and eight girls? Two girls and eight girls?

How many are 1 and 8? 2 and 8?

11. There are ten boys playing together: if eight of them go home, how many boys will be left? Eight boys from ten boys leave how many boys?

Eight from 10 leaves how many? 8 from 9?

12. How many chairs are 1 chair and 7 chairs? 1 chair and 8 chairs? 2 chairs and 7 chairs? 2 chairs and 8 chairs?

13. How many crowns will remain if you take 7 crowns from 10 crowns? 8 crowns from 10 crowns? 7 crowns from 9 crowns? 8 crowns from 9 crowns? 8 crowns from 8 crowns?

*How many are*

0 and 7?

1 and 7?

2 and 7?

3 and 7?

0 and 8?

1 and 8?

2 and 8?

*Take*

7 from 7.

7 from 8.

7 from 9.

7 from 10.

8 from 8.

8 from 9.

8 from 10.

14. How many are 2 and 7? 2 and 8? 3 and 7? 1 and 8? 1 and 7? 8 and 2? 7 and 3?

15. Seven from 10 leaves how many? 7 from 8?  
7 from 9? 8 from 10? 8 from 8? 8 from 9?

16. How many are 4 and 5? 4 and 6? 5 and 4?  
6 and 4? 3 and 6? 3 and 5? 6 and 3? 5 and 3?  
2 and 6? 4 and 3? 4 and 6? 2 and 5?

17. How many remain when you take 3 from 7?  
3 from 9? 4 from 10? 5 from 10? 6 from 10?  
3 from 8? 5 from 8? 6 from 8? 4 from 8?  
8 from 8? 7 from 9?

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### WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)		(1)	(2)	(3)	(4)	(5)	(6)
	7	7	7	8	8	8		7	7	1	8	0	1
Add	<u>2</u>	<u>3</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>0</u>		<u>1</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>4</u>
								0	1	7	1	0	3
	(1)	(2)	(3)	(4)	(5)	(6)		<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>8</u>	<u>1</u>
From	9	10	8	9	10	8	Add	<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
Take	<u>7</u>	<u>7</u>	<u>7</u>	<u>8</u>	<u>8</u>	<u>8</u>							

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## LESSON XVIII.

### REVIEW.

1. John has 4 marbles in one hand, and three marbles in the other: how many marbles has he in both hands?

2. Jane has found a nest with 7 eggs in it: if she take 4 eggs from the nest, how many will remain?

3. Frank had 5 cherries, and his mother gave him 4: how many cherries had he then?

4. Willie has 3 apples in his hand, and 6 in his basket: how many apples has he?

5. There are 8 pigeons sitting on a limb: if 5 fly away, how many pigeons will be left?

6. There are 9 men in a stage coach: if 4 get out of the coach, how many men will be left?

7. How many are 2 and 2? 2 and 2 and 2? 2 and 2 and 2 and 2? 2 and 2 and 2 and 2 and 2? 2 and 1? 2 and 3 and 5?

8. How many are 3 and 3 and 3? 3 and 1 and 3? 3 and 4? 3 and 4 and 2? 4 and 2? 4 and 2 and 3? 4 and 4 and 2?

9. How many will remain if you take 5 from 7? 5 from 9? 5 from 8? 6 from 8? 6 from 10? 6 from 9? 4 from 7? 4 from 9?

### WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)		(1)	(2)	(3)	(4)	(5)	(6)
	6	5	4	3	1	2		2	2	1	1	2	0
Add	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>		<u>1</u>	<u>2</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>4</u>
	(1)	(2)	(3)	(4)	(5)	(6)		1	1	2	2	0	3
	9	8	7	10	6	5		1	1	1	4	2	2
From	9	8	7	10	6	5		1	2	1	1	3	1
Take	<u>6</u>	<u>5</u>	<u>4</u>	<u>6</u>	<u>3</u>	<u>5</u>	Add	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>0</u>

## LESSON XIX.

### REVIEW.

1. John holds up 5 fingers, and Henry 3: how many fingers do both hold up?

2. Charles has placed 9 blocks on the table: if Mary take away seven of them, how many blocks will be left on the table?

3. Susan has made 8 figures on her slate: if she should rub out 5 of them, how many figures would be left?

4. There are 3 bottles in one row, and 5 bottles in another: how many bottles in both rows?

5. A farmer has 5 cows in one lot, and 4 cows in another lot: how many cows has he in both lots?

6. Charles had 10 cents, and spent 7 cents for an orange: how many cents had he left?

7. Jane picked 9 peaches, and gave 6 of them to her little brothers: how many peaches had she left?

8. How many are 4 and 4? 4 and 4 and 2? 4 and 3? 4 and 3 and 3? 5 and 3? 5 and 3 and 2? 2 and 3? 2 and 3 and 4?

9. How many will remain if you take 5 from 8? 5 from 9? 6 from 10? 6 from 8? 4 from 7? 4 from 9? 4 from 8? 3 from 10? 3 from 8?

10. Take 3 from 6. 3 from 9. 3 from 7. 4 from 8. 4 from 10. 4 from 7. 7 from 9. 7 from 10. 8 from 10. 6 from 10.

#### WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)		(1)	(2)	(3)	(4)	(5)	(6)
Add	<u>2</u>	<u>4</u>	<u>3</u>	<u>5</u>	<u>6</u>	<u>5</u>		<u>1</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>6</u>
	<u>7</u>	<u>5</u>	<u>6</u>	<u>4</u>	<u>3</u>	<u>2</u>		<u>1</u>	<u>3</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>1</u>
								<u>3</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>2</u>	<u>0</u>
	(1)	(2)	(3)	(4)	(5)	(6)		<u>2</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>
From	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>7</u>	<u>10</u>		<u>1</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>1</u>
Take	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>4</u>	<u>7</u>	Add	<u>2</u>	<u>1</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>1</u>

## LESSON XX.

## ORAL EXERCISES.

TO TEACHERS.—The object of this and the next lesson is to develop the idea of each number from eleven to twenty inclusive, to teach its name, and the mode of representing it by figures. Make ten marks on the blackboard, and make beneath these, successively, one mark, two marks, three marks, etc. Add the lower group to the upper, and give the appropriate name to the result, as to four and ten, *fourteen*. Blocks, beans, etc., may also be used in a similar manner.

Before answering the three questions below the illustrations, the pupil should, in each case, add and subtract the groups of objects represented; thus: "Ten trees and one tree are eleven trees; one tree from eleven trees leaves ten trees."



1. How many boys are 10 boys and 1 boy?

How many are 10 and 1? Write eleven, thus:  $11$ .

One from 11 leaves how many?



2. How many stars are 10 stars and 2 stars?

How many are 10 and 2? Write twelve, thus:  $12$ .

Two from 12 leaves how many?



3. How many balls are 10 balls and 3 balls?

How many are 10 and 3? Write thirteen, thus:  $13$ .

Three from 13 leaves how many?



4. How many are 10 birds and 4 birds? 10 boys and 4 boys?

How many are 10 and 4? Write fourteen, thus:  $14$ .  
Four from fourteen leaves how many?



5. How many pens are 10 pens and 5 pens?  
How many are 10 and 5? Write fifteen, thus:  $15$ .  
Five from 15 leaves how many?  
Write and read 10, 11, 12, 13, 14, 15.



6. How many stars are 10 stars and 6 stars?  
How many are 10 and 6? Write sixteen, thus:  $16$ .  
Six from 16 leaves how many?



7. How many arrows are 10 arrows and 7 arrows?  
How many are 10 and 7? Write seventeen, thus:  $17$ .  
Seven from 17 leaves how many?



8. How many soldiers are 10 soldiers and 8 soldiers?

How many are 10 and 8? Write eighteen, thus:  $18$ .  
Eight from 18 leaves how many?



9. Ten knives and 9 knives are how many knives?

How many are 10 and 9? Write nineteen, thus: *19*.

Nine from 19 leaves how many?



10. Ten pens and 10 pens are how many pens?

How many are 10 and 10? Write twenty, thus: *20*.

Ten from 20 leaves how many?

Copy and read 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20.

Count from 10 to 20 forward and backward.



## LESSON XXI.

### ORAL EXERCISES.

1. How many are 10 and 1? 10 and 2? 10 and 3? 10 and 4? 10 and 5? 10 and 6? 10 and 7? 10 and 8? 10 and 9? 10 and 10?

2. How many are 10 and 2? 10 and 5? 10 and 6? 10 and 4? 10 and 1? 10 and 7? 10 and 8? 10 and 10?

3. Ten from 12 leaves how many? 10 from 13? 10 from 14? 10 from 16? 10 from 15? 10 from 17? 10 from 18? 10 from 19?

4. How many will be left if you take 10 from 14? 10 from 16? 10 from 18? 10 from 20?

5. How many are 10 and 2? 10 and 5? 10 and 6? 10 and 7? 10 and 10?

6. How many are 10 and 3? 10 and 5? 10 and 7? 10 and 9? 10 and 8? 10 and 6?

In the following table the first twenty numbers are expressed by words, figures, and letters.

By Words.		By Figures.		By Letters.	
ROMAN.	SCRIPT.	ROMAN.	SCRIPT.	ROMAN.	ITALIC.
One.	<i>One.</i>	1	<i>1</i>	I	<i>I</i>
Two.	<i>Two.</i>	2	<i>2</i>	II	<i>II</i>
Three.	<i>Three.</i>	3	<i>3</i>	III	<i>III</i>
Four.	<i>Four.</i>	4	<i>4</i>	IV	<i>IV</i>
Five.	<i>Five.</i>	5	<i>5</i>	V	<i>V</i>
Six.	<i>Six.</i>	6	<i>6</i>	VI	<i>VI</i>
Seven.	<i>Seven.</i>	7	<i>7</i>	VII	<i>VII</i>
Eight.	<i>Eight.</i>	8	<i>8</i>	VIII	<i>VIII</i>
Nine.	<i>Nine.</i>	9	<i>9</i>	IX	<i>IX</i>
Ten.	<i>Ten.</i>	10	<i>10</i>	X	<i>X</i>
Eleven.	<i>Eleven.</i>	11	<i>11</i>	XI	<i>XI</i>
Twelve.	<i>Twelve.</i>	12	<i>12</i>	XII	<i>XII</i>
Thirteen.	<i>Thirteen.</i>	13	<i>13</i>	XIII	<i>XIII</i>
Fourteen.	<i>Fourteen.</i>	14	<i>14</i>	XIV	<i>XIV</i>
Fifteen.	<i>Fifteen.</i>	15	<i>15</i>	XV	<i>XV</i>
Sixteen.	<i>Sixteen.</i>	16	<i>16</i>	XVI	<i>XVI</i>
Seventeen.	<i>Seventeen.</i>	17	<i>17</i>	XVII	<i>XVII</i>
Eighteen.	<i>Eighteen.</i>	18	<i>18</i>	XVIII	<i>XVIII</i>
Nineteen.	<i>Nineteen.</i>	19	<i>19</i>	XIX	<i>XIX</i>
Twenty.	<i>Twenty.</i>	20	<i>20</i>	XX	<i>XX</i>

## LESSON XXII.



## ORAL EXERCISES.

1. Here is a fine farm, with a stream of water flowing through it. How many cows are grazing in the pasture?

2. How many cows are 5 cows and 2 cows? 7 cows and 2 cows? 9 cows and 2 cows?

3. How many ducks are in the water? How many are on the ground?

4. How many ducks are 7 ducks and 3 ducks? 8 ducks and 3 ducks? 9 ducks and 3 ducks?

5. How many sheep are lying down? How many are standing near the water?

6. How many are 6 sheep and 4 sheep? 8 sheep and 4 sheep? 10 sheep and 4 sheep?

7. How many are 5 cows and 5 cows? 6 cows and 5 cows? 7 cows and 5 cows?

How many are 5 and 5? 6 and 5? 7 and 5?

8. How many are 10 cows less 5 cows? 11 cows less 5 cows? 12 cows less 5 cows?

9. How many are 8 ducks and 5 ducks? 9 ducks and 5 ducks? 10 ducks and 5 ducks?

Eight and 5 are how many? 9 and 5? 10 and 5?

10. How many are 13 ducks less 5 ducks? 14 ducks less 5 ducks? 15 ducks less 5 ducks?

11. Ten less 5 is how many? 12 less 5? 14 less 5?

12. There are 13 sheep in a flock: if 5 of them should be sold, how many would be left?



*How many are*

0 and 5?  
1 and 5?  
2 and 5?  
3 and 5?  
4 and 5?  
5 and 5?  
6 and 5?  
7 and 5?  
8 and 5?  
9 and 5?  
10 and 5?

*Take*

5 from 5.  
5 from 6.  
5 from 7.  
5 from 8.  
5 from 9.  
5 from 10.  
5 from 11.  
5 from 12.  
5 from 13.  
5 from 14.  
5 from 15.

13. How many are 5 and 5? 7 and 5? 9 and 5? 8 and 5? 10 and 5? 4 and 5? 6 and 5?

14. How many are 5 and 6? 5 and 4? 5 and 8? 5 and 9? 5 and 7? 5 and 10?

15. Five from 10 leaves how many? 5 from 12? 5 from 11? 5 from 13? 5 from 15?

## WRITTEN EXERCISES.

Copy and read 11, 13, 15, 17, 19, 18, 16, 14, and 12.

	(1)	(2)	(3)	(4)	(5)	(6)
	5	5	5	5	5	5
Add	5	6	8	7	9	4

	(1)	(2)	(3)	(4)	(5)
From	10	11	13	12	14
Take	5	5	5	5	5

	(1)	(2)	(3)	(4)	(5)	(6)
	2	1	3	3	2	2
	2	5	2	2	1	2
	2	2	5	5	5	5
	2	5	2	1	2	2
	2	2	5	5	3	5
Add	2	1	2	3	5	4

TO TEACHERS.—The object of this and the next six lessons is to teach the addition and subtraction of numbers not exceeding *twenty*. The use of objects should be continued.

## LESSON XXIII.

## ORAL EXERCISES.

1. Here are two rows of trees. How many trees are 4 trees and 6 trees? 5 trees and 6 trees?



2. How many houses are 4 houses and 6 houses? 5 houses and 6 houses?

Four and 6 are how many? 5 and 6?

3. There are ten trees in a row: if 6 of them should be cut down, how many trees would remain standing?



4. How many clusters of oak leaves in each of these two groups? How many leaves in both groups? 6 leaves and 6 leaves are how many leaves?

5. How many are 6 flags and 6 flags? 7 flags and 6 flags? 5 flags and 6 flags?

Six and 6 are how many? 7 and 6? 5 and 6?

Six from 12 leaves how many? 6 from 13?



6. How many tops are in these two rows? If 8 tops be taken away, how many will be left?

7. Six tops from 14 tops leave how many tops? 6 tops from 15 tops?

8. How many balls are 8 balls and 6 balls? 9 balls and 6 balls? 10 balls and 6 balls?

Nine and 6 are how many? 10 and 6?

9. John found 15 peaches on one limb, and picked 6 of them: how many peaches were left on the limb?

Six from 15 leaves how many? 6 from 16?



10. How many are 6 boys and 6 boys? 7 boys and 6 boys? 8 boys and 6 boys? 9 boys and 6 boys? 10 boys and 6 boys?

11. How many are 4 trees and 6 trees? 6 trees and 6 trees? 8 trees and 6 trees? 5 trees and 6 trees? 7 trees and 6 trees? 9 trees and 6 trees? 10 trees and 6 trees?

12. Six quails from 10 quails leave how many quails? 6 quails from 12 quails? 6 quails from 14 quails? 6 quails from 16 quails? 6 quails from 13 quails? 6 quails from 11 quails?

*How many are*

0 and 6?  
 1 and 6?  
 2 and 6?  
 3 and 6?  
 4 and 6?  
 5 and 6?  
 6 and 6?  
 7 and 6?  
 8 and 6?  
 9 and 6?  
 10 and 6?

*Take*

6 from 6.  
 6 from 7.  
 6 from 8.  
 6 from 9.  
 6 from 10.  
 6 from 11.  
 6 from 12.  
 6 from 13.  
 6 from 14.  
 6 from 15.  
 6 from 16.

13. How many are 2 and 6? 4 and 6? 6 and 6?  
 5 and 6? 3 and 6? 7 and 6? 9 and 6? 8 and 6?  
 10 and 6? 1 and 6?

14. Six and 3 are how many? 6 and 2? 6 and 4?  
 6 and 6? 6 and 5? 6 and 7? 6 and 9? 6 and 8?  
 6 and 10? 1 and 10?

15. How many will remain if you take 6 from 7?  
 6 from 9? 6 from 10? 6 from 14? 6 from 13?  
 6 from 15? 6 from 16?

16. How many will remain if you take 5 from 13?  
 6 from 13? 5 from 9? 6 from 9? 5 from 11?  
 6 from 11? 5 from 14? 6 from 14? 5 from 10?  
 6 from 10? 5 from 12? 6 from 12?

## WRITTEN EXERCISES.

Copy and read 20, 21, 22, 23, 24, 25, 26, 27, 28,  
 29, 30.

	(1)	(2)	(3)	(4)	(5)	(6)
	6	6	6	6	6	6
Add	<u>4</u>	<u>8</u>	<u>6</u>	<u>7</u>	<u>9</u>	<u>5</u>
	(1)	(2)	(3)	(4)	(5)	
From	10	14	12	13	15	
Take	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	

	(1)	(2)	(3)	(4)	(5)	(6)
	1	3	2	2	2	3
	3	2	6	3	2	6
	6	1	3	3	4	3
	6	1	4	4	3	2
Add	<u>2</u>	<u>6</u>	<u>2</u>	<u>3</u>	<u>2</u>	<u>1</u>

## LESSON XXIV.

## ORAL EXERCISES.

1. How many are 4 raisins and 7 raisins? 5 raisins and 7 raisins? 6 raisins and 7 raisins?

Four and 7 are how many? 5 and 7? 6 and 7?



2. John picked 12 pears, and gave 7 of them to his sister: how many pears had he left?

3. Seven pears from 12 pears leave how many pears? 7 pears from 13 pears? 7 pears from 10 pears? 7 pears from 11 pears?

Seven from 12 leaves how many? 7 from 13?



4. How many clusters in each of these groups? 7 clusters and 7 clusters are how many clusters?

5. How many hens are 5 hens and 7 hens? 6 hens and 7 hens? 7 hens and 7 hens? 8 hens and 7 hens?

Seven and 7 are how many? 8 and 7?



6. A merchant sold 9 forks to one man, and 7 forks to another: how many forks did he sell?

7. How many are 9 spoons and 7 spoons? 10 spoons and 7 spoons? 5 spoons and 7 spoons?

Nine and 7 are how many? 10 and 7?

8. There are 16 silver forks in the basket: if Jane put 7 of them on the table, how many forks will be left in the basket?

Seven from 16 leaves how many? 7 from 17?



9. How many are 3 shells and 7 shells? 4 shells and 7 shells? 6 shells and 7 shells? 5 shells and 7 shells? 7 shells and 7 shells?

10. How many are 7 nails and 5 nails? 7 nails and 7 nails? 7 nails and 9 nails? 7 nails and 6 nails? 7 nails and 8 nails? 7 nails and 4 nails? 7 nails and 3 nails?

11. How many are left when you take 7 figs from 10 figs? 7 figs from 12 figs? 7 figs from 14 figs? 7 figs from 16 figs? 7 figs from 15 figs? 7 figs from 13 figs? 7 figs from 11 figs?

*How many are*

0 and 7?  
1 and 7?  
2 and 7?  
3 and 7?  
4 and 7?  
5 and 7?  
6 and 7?  
7 and 7?  
8 and 7?  
9 and 7?  
10 and 7?

*Take*

7 from 7.  
7 from 8.  
7 from 9.  
7 from 10.  
7 from 11.  
7 from 12.  
7 from 13.  
7 from 14.  
7 from 15.  
7 from 16.  
7 from 17.

12. How many are 3 and 7? 5 and 7? 7 and 7?  
8 and 7? 6 and 7? 9 and 7? 4 and 7? 7 and 8?  
7 and 9? 7 and 6? 7 and 5? 7 and 4?

13. Seven from 10 leaves how many? 7 from 12?

7 from 11? 7 from 14? 9 from 13? 7 from 15?  
7 from 9? 7 from 16? 7 from 15?

### WRITTEN EXERCISES.

Copy and read 20, 22, 25, 21, 23, 24, 26, 27, 29, 28, 30.

	(1)	(2)	(3)	(4)	(5)	(6)		(1)	(2)	(3)	(4)	(5)	(6)
	7	7	7	7	7	7		1	7	2	3	2	6
Add	<u>4</u>	<u>6</u>	<u>8</u>	<u>5</u>	<u>7</u>	<u>9</u>		1	4	5	5	4	2
								7	1	3	6	6	7
	(1)	(2)	(3)	(4)	(5)	(6)		3	7	4	3	7	4
From	11	13	15	12	16	14		7	2	3	4	4	5
Take	<u>7</u>	<u>7</u>	<u>7</u>	<u>7</u>	<u>7</u>	<u>7</u>	Add	<u>7</u>	<u>6</u>	<u>2</u>	<u>7</u>	<u>3</u>	<u>3</u>

## LESSON XXV.

### ORAL EXERCISES.

1. If all these balls were together, how many balls would there be in the group?



2. How many balls are 6 balls and 8 balls? 5 balls and 8 balls? 4 balls and 8 balls?

Six and 8 are how many? 5 and 8? 4 and 8?

3. Mr. Jones had 14 quails, and sold 8 of them: how many quails had he left?

4. Eight quails from 14 quails leave how many quails? 8 quails from 13 quails?

Eight from 14 leaves how many? 8 from 13?



5. How many spoons are 8 spoons and 8 spoons? 7 spoons and 8 spoons? 6 spoons and 8 spoons?

6. Eight desks and 8 desks are how many desks?  
7 desks and 8 desks? 6 desks and 8 desks?

How many are 8 and 8? 7 and 8? 6 and 8?

7. Maria has 16 pens for the writing class: if she give 8 pens to the girls, how many will be left for the boys?

Eight from 16 leaves how many? 8 from 15?



8. How many keys are 9 keys and 8 keys? 10 keys and 8 keys?

9. How many crackers are 9 crackers and 8 crackers? 10 crackers and 8 crackers?

Nine and 8 are how many? 10 and 8?

10. Eight keys from 17 keys leave how many keys?  
8 keys from 18 keys?

Nine from 17 leaves how many? 9 from 18?



11. How many boys are 2 boys and 8 boys? 4 boys and 8 boys? 6 boys and 8 boys? 8 boys and 8 boys? 10 boys and 8 boys?

12. How many are 1 step and 8 steps? 3 steps and 8 steps? 5 steps and 8 steps? 7 steps and 8 steps? 9 steps and 8 steps? 6 steps and 8 steps? 8 steps and 6 steps?

13. Eight boys from 10 boys leave how many? 8 boys from 12 boys? 8 boys from 11 boys? 8 boys from 13 boys? 8 boys from 15 boys? 8 boys from 14 boys? 8 boys from 16 boys?

*How many are*

0 and 8?  
 1 and 8?  
 2 and 8?  
 3 and 8?  
 4 and 8?  
 5 and 8?  
 6 and 8?  
 7 and 8?  
 8 and 8?  
 9 and 8?  
 10 and 8?

*Take*

8 from 8.  
 8 from 9.  
 8 from 10.  
 8 from 11.  
 8 from 12.  
 8 from 13.  
 8 from 14.  
 8 from 15.  
 8 from 16.  
 8 from 17.  
 8 from 18.

14. How many are 3 and 8? 5 and 8? 2 and 8?  
 4 and 8? 6 and 8? 8 and 8? 7 and 8? 9 and 8?  
 5 and 8? 9 and 8? 7 and 8?

15. Eight and 2 are how many? 8 and 4? 8 and  
 3? 8 and 5? 8 and 7? 8 and 6? 8 and 8? 8  
 and 9? 8 and 7? 7 and 8?

16. How many will be left if you take 8 from 10?  
 8 from 12? 8 from 14? 8 from 16? 8 from 13?  
 8 from 15? 8 from 11? 8 from 10?

17. Six from 12 leaves how many? 7 from 12?  
 8 from 12? 6 from 14? 7 from 14? 8 from 14?  
 6 from 16? 7 from 16? 8 from 16?

## WRITTEN EXERCISES.

Copy and read 30, 31, 32, 33, 34, 35, 36, 37, 38,  
 39, 40.

	(1)	(2)	(3)	(4)	(5)	(6)		(1)	(2)	(3)	(4)	(5)	(6)
	8	8	8	8	8	8		1	2	2	1	7	6
Add	5	7	6	8	9	4		1	6	3	4	2	5
								8	7	5	1	6	2
	(1)	(2)	(3)	(4)	(5)	(6)		4	8	6	8	2	6
From	13	15	14	16	17	12		8	3	6	5	4	3
Take	8	8	8	8	8	8	Add	8	2	8	3	8	4

## LESSON XXVI.

## ORAL EXERCISES.

1. How many clusters are 3 clusters and 9 clusters? 4 clusters and 9 clusters? 5 clusters and 9 clusters? 6 clusters and 9 clusters?



How many are 4 and 9? 5 and 9? 6 and 9?

2. Nine pears from 15 pears leave how many pears? 9 pears from 14 pears? 9 pears from 13 pears?

Nine from 15 leaves how many? 9 from 14? 9 from 13? 9 from 12? 9 from 11?

3. How many arrows in each of these groups? How many in both groups?



4. If there were 7 arrows in the first group, how many would there be in both groups?

5. How many are 8 bows and 9 bows? 7 bows and 9 bows? 7 deer and 9 deer?

Seven and 9 are how many? 8 and 9?

6. If you had 17 arrows, and should give away 9 of them, how many arrows would you have left?

Nine from 17 leaves how many? 9 from 16?



7. William has 9 books, and Albert has 9: how many books have they both?

8. If William had 10 books, and Albert 9, how many would they then have?

Nine and 9 are how many? 10 and 9?

9. Nine books from 18 books leave how many?  
9 books from 19 books?

Nine from 18 leaves how many? 9 from 19?



10. How many are 2 keys and 9 keys? 4 keys and 9 keys? 6 keys and 9 keys? 7 keys and 9 keys? 8 keys and 9 keys? 10 keys and 9 keys?

11. How many are 3 girls and 9 girls? 5 girls and 9 girls? 7 girls and 9 girls? 9 girls and 9 girls? 8 girls and 9 girls?

12. How many are left when you take 9 keys from 12 keys? 9 keys from 13 keys? 9 keys from 15 keys? 9 keys from 17 keys? 9 keys from 19 keys? 9 keys from 16 keys?

*How many are*

0 and 9?  
1 and 9?  
2 and 9?  
3 and 9?  
4 and 9?  
5 and 9?  
6 and 9?  
7 and 9?  
8 and 9?  
9 and 9?  
10 and 9?

*Take*

9 from 9.  
9 from 10.  
9 from 11.  
9 from 12.  
9 from 13.  
9 from 14.  
9 from 15.  
9 from 16.  
9 from 17.  
9 from 18.  
9 from 19.

13. How many are 3 and 9? 6 and 9? 9 and 9?  
2 and 9? 5 and 9? 7 and 9? 1 and 9? 4 and 9?  
10 and 9? 8 and 9? 9 and 8?

14. How many are 9 and 2? 9 and 5? 9 and 8?  
 9 and 9? 9 and 1? 9 and 6? 9 and 4? 9 and 3?  
 9 and 7? 7 and 9? 6 and 9?

15. How many are left when you take 9 from 12?  
 9 from 14? 9 from 16? 9 from 18? 9 from 15?  
 9 from 13? 9 from 11? 9 from 10?

---

WRITTEN EXERCISES.

Copy and read 30, 32, 34, 31, 33, 36, 35, 37, 39,  
 38, 40.

	(1)	(2)	(3)	(4)	(5)	(6)		(1)	(2)	(3)	(4)	(5)	(6)
	9	9	9	9	9	9		7	3	5	4	3	1
Add	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>4</u>	<u>9</u>		<u>4</u>	<u>6</u>	<u>4</u>	<u>2</u>	<u>6</u>	<u>9</u>
								<u>6</u>	<u>9</u>	<u>5</u>	<u>4</u>	<u>8</u>	<u>4</u>
	(1)	(2)	(3)	(4)	(5)	(6)		2	2	9	6	6	3
From	14	15	16	17	13	18		9	3	4	5	3	9
Take	<u>9</u>	<u>9</u>	<u>9</u>	<u>9</u>	<u>9</u>	<u>9</u>	Add	<u>9</u>	<u>6</u>	<u>2</u>	<u>3</u>	<u>3</u>	<u>4</u>

---

## LESSON XXVII.

### REVIEW.

To TEACHERS.—The pupil should not be required to give a formal logical analysis of these problems. All that is necessary is a correct statement of the answer and the operation. Take, for example, the second problem below. The solution may be given thus:

*Mary found 12 eggs: 4 eggs and 8 eggs are 12 eggs. Or, 4 eggs and 8 eggs are 12 eggs: Mary found 12 eggs.*

1. John has 6 plums in one hand, and 5 plums in the other: how many plums has he in both hands?

2. Mary found 4 eggs in one nest, and 8 eggs in another: how many eggs did she find?

3. Alice gave 4 nice cherries to her brother Edward, and 7 cherries to her cousin William: how many cherries did she give to both?



4. There are 8 quails on the fence, and 9 on the ground: how many quails in the flock?

5. There are 6 windows in the ends of a house, and 9 windows in the sides: how many windows in the house?

6. How many are 2 and 5? 4 and 5? 7 and 5? 5 and 6? 5 and 8? 5 and 7?

7. How many are 3 and 6? 3 and 8? 3 and 9? 4 and 3? 7 and 3? 9 and 3? 10 and 3?

8. How many are 5 and 4? 6 and 4? 8 and 4? 9 and 4? 4 and 7? 4 and 5? 4 and 10?

9. How many are 4 and 7? 4 and 7 and 6? 5 and 7? 5 and 7 and 9? 6 and 8?

---

#### WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	6	6	6	6	5	5	5	5
Add	<u>5</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>8</u>	<u>7</u>	<u>6</u>	<u>9</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	5	7	6	8	4	9	7	6
Add	<u>6</u>	<u>6</u>	<u>7</u>	<u>6</u>	<u>6</u>	<u>5</u>	<u>5</u>	<u>5</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	5	8	9	8	7	6	6	4
Add	<u>6</u>	<u>7</u>	<u>5</u>	<u>9</u>	<u>6</u>	<u>9</u>	<u>8</u>	<u>9</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	2	3	4	5	6	7	8	9
Add	<u>9</u>	<u>8</u>	<u>7</u>	<u>6</u>	<u>5</u>	<u>4</u>	<u>3</u>	<u>2</u>

## LESSON XXVIII.

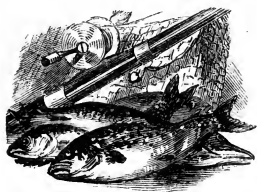
## REVIEW.

1. Mary found 12 eggs, and broke 5 of them in climbing the fence: how many eggs had she left?

2. Charles has 15 cents: if he give 8 cents for a lead pencil, how many cents will he then have?

3. Albert saw 13 blackbirds on a small tree, but 6 of them soon flew down to the ground: how many were then on the tree?

4. Susan wrote 17 words on her slate, and then erased 8 of them: how many words were left?



5. Frank caught 14 trout, and sold 9 of them: how many trout had he left?

6. Four from 10 leaves how many? 4 from 12? 4 from 14? 4 from 13? 4 from 11?

7. Five from 10 leaves how many? 5 from 12?  
5 from 14? 5 from 9? 5 from 15? 5 from 13?

WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
From	9	10	12	14	11	15	13	16
Take	6	6	6	6	6	6	6	6

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
From	10	12	14	16	13	15	17	11
Take	7	7	7	7	7	7	7	7

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
From	10	12	14	13	16	18	17	15
Take	8	8	8	8	8	8	8	8

## LESSON XXIX.

TO TEACHERS.—Copy this diagram on the blackboard, using, in place of the star, a letter, a circle, a triangle, a square, or some other simple figure, and drill the class in rapid counting to *one hundred*, first by ones; then by tens, as 10, 20, 30, etc.; and then by fives, as 5, 10, 15, 20, etc.

---

*	*	*	*	*	*	*	*	*	*	10
*	*	*	*	*	*	*	*	*	*	20
*	*	*	*	*	*	*	*	*	*	30
*	*	*	*	*	*	*	*	*	*	40
*	*	*	*	*	*	*	*	*	*	50
*	*	*	*	*	*	*	*	*	*	60
*	*	*	*	*	*	*	*	*	*	70
*	*	*	*	*	*	*	*	*	*	80
*	*	*	*	*	*	*	*	*	*	90
*	*	*	*	*	*	*	*	*	*	100

---

## WRITTEN EXERCISES.

1. Copy and read the following numbers:

20	30	40	50	60	70	80	90
21	31	41	51	61	71	81	91
22	32	42	52	62	72	82	92
23	33	43	53	63	73	83	93
24	34	44	54	64	74	84	94
25	35	45	55	65	75	85	95
26	36	46	56	66	76	86	96
27	37	47	57	67	77	87	97
28	38	48	58	68	78	88	98
29	39	49	59	69	79	89	99

2. Copy and read 21, 26, 33, 36, 38, 40, 44, 45, 48.

3. Copy and read 27, 36, 26, 37, 46, 48, 43, 55, 59.

4. Copy and read 61, 63, 66, 64, 75, 73, 77, 78, 80.

5. Copy and read 84, 83, 85, 87, 90, 94, 96, 97, 100.
6. Copy and read 18, 27, 36, 48, 54, 67, 75, 86, 94.
7. Begin with 5 and count to 100 by fives.
8. Begin with 10 and count to 100 by tens.

## ADDITION.

### LESSON XXX.

#### ORAL EXERCISES.

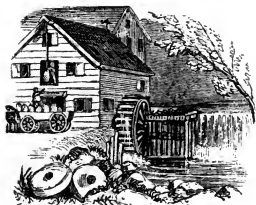
**TO TEACHERS.**—The object of this and the next eleven lessons is to teach the addition of any number less than 10 to any number less than 100. The exercises are so arranged as to lead the pupil to add first the *units*. In finding the sum of 19 and 2, 29 and 2, or 39 and 2, for example, the 9 and 2 are first added. This gives the unit figure, and by adding 1 to the left hand figure the sum is obtained.

The **WRITTEN EXERCISES** should be used both as slate and blackboard exercises. The columns of figures should be added both up and down.

1. Charles has 9 cents in one hand, and 2 cents in the other: how many cents has he in both hands?

2. Mary has written 8 words: if she write 2 words more, how many words will she have written?

3. A farmer has put 10 sacks of flour in his wagon: if he put in 2 sacks more, how many sacks will there be in the wagon?



4. How many are 5 boys and 2 boys? 15 boys and

2 boys? 35 boys and 2 boys? 25 boys and 2 boys? 45 boys and 2 boys?

5. How many trees are 7 trees and 2 trees? 17 trees and 2 trees? 27 trees and 2 trees? 37 trees and 2 trees? 47 trees and 2 trees?

6. How many are 8 and 2? 18 and 2? 28 and 2? 38 and 2? 58 and 2? 48 and 2?

7. How many are 9 and 2? 19 and 2? 39 and 2? 29 and 2? 49 and 2? 59 and 2?

---

WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)		(1)	(2)	(3)	(4)	(5)
	2	2	1	2	2		1	2	2	2	2
Add	<u>8</u>	<u>9</u>	<u>9</u>	<u>7</u>	<u>6</u>		1	2	2	2	1
							1	2	2	1	1
	(1)	(2)	(3)	(4)	(5)		1	2	2	2	2
	2	2	2	1	2		1	2	2	2	2
Add	<u>15</u>	<u>17</u>	<u>16</u>	<u>19</u>	<u>18</u>		1	2	2	2	2
							1	2	2	1	1
	(1)	(2)	(3)	(4)	(5)		1	2	2	2	1
	2	2	2	2	2		1	2	2	2	1
Add	<u>18</u>	<u>29</u>	<u>27</u>	<u>38</u>	<u>26</u>		1	2	2	1	2
							1	2	2	1	2
	(1)	(2)	(3)	(4)	(5)		1	2	2	2	2
	2	2	1	2	2		1	2	2	1	1
Add	<u>19</u>	<u>28</u>	<u>39</u>	<u>37</u>	<u>48</u>	Add	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>2</u>

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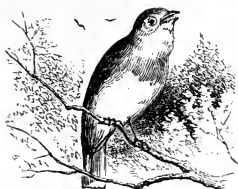
LESSON XXXI.

ORAL EXERCISES.

1. Charles has 8 marbles in one hand, and 3 marbles in the other: how many marbles has he in both?

2. Frank has 18 cherries: if his mother give him 3, how many cherries will he then have?

3. Mary has picked 17 plums: if she pick 3 more, how many plums will she then have?



4. There are 9 birds on one tree, and 3 birds on another: how many birds on both trees?

5. Harry had 19 cents, and his father gave him 3 cents: how many had he then?

6. How many are 12 eggs and 3 eggs? 14 eggs and 3 eggs? 18 eggs and 3 eggs? 15 eggs and 3 eggs? 19 eggs and 3 eggs? 17 eggs and 3 eggs?

7. How many are 5 and 3? 15 and 3? 35 and 3? 55 and 3? 25 and 3? 45 and 3?

8. How many are 7 and 3? 17 and 3? 37 and 3? 57 and 3? 27 and 3? 47 and 3? 67 and 3?

9. How many are 8 and 3? 28 and 3? 18 and 3? 38 and 3? 48 and 3? 68 and 3?

10. How many are 9 and 3? 29 and 3? 19 and 3? 49 and 3? 39 and 3? 59 and 3?

WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)
	3	3	3	3
Add	18	27	29	28

	(1)	(2)	(3)	(4)
	3	3	3	3
Add	17	36	29	38

	(1)	(2)	(3)	(4)
	3	3	3	3
Add	19	25	37	47

	(1)	(2)	(3)	(4)
	3	2	1	2
Add	16	49	39	28

	(1)	(2)	(3)	(4)	(5)	(6)
	3	3	3	3	3	3
	3	3	1	3	3	1
	3	3	3	3	2	2
	3	3	3	3	2	2
	3	3	1	3	3	3
	3	3	3	3	2	3
	3	3	3	3	3	2
	3	3	1	3	3	2
	3	3	1	3	3	1
	3	3	3	3	2	3
	3	3	1	3	3	2
Add	3	1	3	2	2	3

## LESSON XXXII.

## ORAL EXERCISES.

1. There are 8 horses in one field, and 4 horses in another: how many horses in both fields?

2. Thomas received 15 cents for picking ten quarts of cherries, and 4 cents for selling them: how many cents did he receive in all?



3. There are 18 cows in one field, and 4 cows in another: how many cows in both fields?

4. There are 19 boys and 4 girls in a class: how many pupils in all?

5. How many are 6 pears and 4 pears? 16 pears and 4 pears? 36 pears and 4 pears? 26 pears and 4 pears? 46 pears and 4 pears?

6. How many are 5 and 4? 15 and 4? 35 and 4? 45 and 4? 25 and 4? 55 and 4?

7. How many are 7 and 4? 17 and 4? 37 and 4? 57 and 4? 47 and 4? 27 and 4? 67 and 4?

8. How many are 9 and 4? 19 and 4? 29 and 4? 49 and 4? 69 and 4? 59 and 4? 39 and 4?

9. How many are 8 and 4? 18 and 4? 48 and 4? 38 and 4? 28 and 4? 58 and 4?

10. How many are 9 and 2? 19 and 2? 39 and 2? 29 and 2? 59 and 2? 49 and 2? 69 and 2?

11. How many are 8 and 3? 18 and 3? 38 and 3? 48 and 3? 28 and 3? 58 and 3? 47 and 3? 67 and 3? 57 and 3? 37 and 3? 27 and 3?

## WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)		(1)	(2)	(3)	(4)	(5)	(6)
	4	4	4	4		4	4	1	4	4	4
Add	<u>16</u>	<u>24</u>	<u>28</u>	<u>36</u>		4	4	1	4	2	2
	(1)	(2)	(3)	(4)		4	4	1	4	2	2
	4	4	4	4		4	4	4	4	2	2
Add	<u>27</u>	<u>35</u>	<u>39</u>	<u>37</u>		4	4	4	4	4	2
	(1)	(2)	(3)	(4)		4	4	1	4	2	1
	4	4	4	4		4	4	4	4	2	4
Add	<u>17</u>	<u>38</u>	<u>26</u>	<u>47</u>		4	4	1	4	2	2
	(1)	(2)	(3)	(4)		4	4	1	4	4	1
	3	2	3	3		4	4	4	4	2	1
Add	<u>19</u>	<u>28</u>	<u>38</u>	<u>47</u>	Add	<u>4</u>	<u>1</u>	<u>4</u>	<u>2</u>	<u>2</u>	<u>1</u>

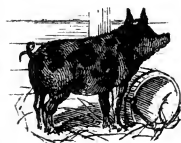
## LESSON XXXIII.

## ORAL EXERCISES.

1. A garden contains 8 peach trees, and 5 pear trees: how many trees of both kinds in the garden?

2. Harry sold three oranges for 18 cents, and two lemons for 5 cents: how many cents did he receive?

3. A drover bought 19 hogs of one farmer, and 5 hogs of another: how many hogs did he buy?



4. A man paid 17 dollars for a cow, and 5 dollars for her calf: how much did he pay for both?

5. How many are 8 stars and 5 stars? 18 stars and 5 stars? 16 stars and 5 stars? 19 stars and 5 stars? 17 stars and 5 stars?

6. How many are 6 and 5? 16 and 5? 36 and 5? 56 and 5? 26 and 5? 46 and 5?

7. How many are 7 and 5? 17 and 5? 37 and 5?  
27 and 5? 47 and 5? 57 and 5?

8. How many are 8 and 5? 18 and 5? 38 and 5?  
48 and 5? 28 and 5? 58 and 5?

9. How many are 9 and 5? 19 and 5? 49 and 5?  
29 and 5? 59 and 5? 39 and 5?

10. How many are 5 and 5? 15 and 5? 35 and  
5? 55 and 5? 25 and 5? 45 and 5?

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WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)		(1)	(2)	(3)	(4)	(5)	(6)
	5	5	5	5		5	5	1	5	5	5
Add	<u>26</u>	<u>27</u>	<u>25</u>	<u>28</u>		5	5	5	5	2	5
						5	5	5	5	2	5
	(1)	(2)	(3)	(4)		5	5	5	5	5	5
	15	15	15	15		5	5	1	5	5	5
Add	<u>16</u>	<u>26</u>	<u>20</u>	<u>28</u>		5	5	5	5	5	2
						5	5	1	5	2	2
	(1)	(2)	(3)	(4)		5	5	1	5	5	2
	25	25	25	25		5	5	5	5	2	1
Add	<u>37</u>	<u>45</u>	<u>39</u>	<u>43</u>		5	5	5	5	2	2
						5	5	1	5	5	2
	(1)	(2)	(3)	(4)		5	5	1	5	2	2
	14	37	23	23	Add	<u>5</u>	<u>1</u>	<u>5</u>	<u>2</u>	<u>2</u>	<u>1</u>
Add	<u>26</u>	<u>14</u>	<u>28</u>	<u>39</u>							

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LESSON XXXIV.

ORAL EXERCISES.

1. How many are 5 and 6? 5 and 16? 5 and 36?  
5 and 26? 5 and 46?

2. How many are 4 and 6? 4 and 16? 4 and 36?  
4 and 46? 4 and 26? 4 and 56?

3. How many are 2 and 2 and 3 and 1 and 4 and  
3 and 5?

4. How many are 5 and 4 and 3 and 2 and 1 and 2 and 3 and 4 and 5?

5. Begin with 2 and count to 50 by adding 2 successively, thus: 2, 4, 6, 8, 10, 12, etc.

6. Begin with 1 and count to 51 by adding 2 successively.

7. Begin with 3 and count to 42 by adding 3 successively, thus: 3, 6, 9, 12, 15, 18, etc.

8. Begin with 2 and count to 41 by adding 3 successively.

### WRITTEN EXERCISES.

	(1)	(2)	(3)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	5	4	3	5	5	5	4	4	4	5	4
Add	<u>16</u>	<u>27</u>	<u>28</u>	5	3	2	4	3	2	5	5
				5	5	1	4	4	3	5	5
	(1)	(2)	(3)	5	3	2	4	3	4	5	4
	25	15	35	5	5	5	4	4	2	5	4
Add	<u>26</u>	<u>25</u>	<u>27</u>	5	3	3	4	3	3	5	4
				5	5	5	4	4	2	5	5
	(1)	(2)	(3)	5	3	5	4	3	1	5	5
	35	25	45	5	5	3	4	4	2	5	4
Add	<u>18</u>	<u>19</u>	<u>20</u>	5	3	2	4	3	3	5	4
				5	5	1	4	4	4	5	5
	(1)	(2)	(3)	5	3	2	4	3	3	5	4
	14	13	25	5	5	3	4	4	2	5	5
Add	<u>26</u>	<u>37</u>	<u>35</u>	Add	<u>3</u>	<u>3</u>	<u>5</u>	<u>3</u>	<u>1</u>	<u>4</u>	<u>4</u>

## LESSON XXXV.

### ORAL EXERCISES.

1. Frank has 7 sour apples, and 6 sweet ones: how many apples has he?

2. Jane's father gave her 8 cents, and her mother gave her 6 cents: how many cents did she receive?



3. Jane read 9 verses, and Mary 6 verses more than Jane: how many did Mary read?

4. In a certain orchard there are 19 apple trees, and 6 peach trees: how many trees in the orchard?

5. How many are 5 raisins and 6 raisins? 15 raisins and 6 raisins? 14 raisins and 6 raisins? 17 raisins and 6 raisins? 19 raisins and 6 raisins?

6. How many are 5 and 6? 15 and 6? 35 and 6? 55 and 6? 45 and 6? 25 and 6? 65 and 6?

7. How many are 7 and 6? 17 and 6? 37 and 6? 57 and 6? 47 and 6? 27 and 6?

8. How many are 9 and 6? 19 and 6? 39 and 6? 59 and 6? 29 and 6?

9. How many are 8 and 6? 18 and 6? 48 and 6? 58 and 6? 68 and 6? 38 and 6? 28 and 6?

#### WRITTEN EXERCISES.

	(1)	(2)	(3)		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	6	6	6		6	6	6	3	3	6	4	6
Add	<u>7</u>	<u>9</u>	<u>8</u>		6	6	6	3	2	4	6	5
					6	6	2	6	3	6	4	6
	(1)	(2)	(3)		6	6	1	3	6	4	6	5
	6	16	26		6	6	6	6	2	4	1	6
Add	<u>16</u>	<u>38</u>	<u>25</u>		6	6	1	3	6	6	2	5
					6	6	6	6	3	4	3	6
	(1)	(2)	(3)		6	6	6	6	6	4	4	5
	16	36	26		6	6	6	6	2	6	6	5
Add	<u>15</u>	<u>24</u>	<u>48</u>		6	6	6	6	3	6	6	6
					6	6	6	6	1	6	4	6
	(1)	(2)	(3)		6	6	6	6	2	6	3	6
	24	35	47		6	6	6	6	3	6	2	6
Add	<u>65</u>	<u>46</u>	<u>26</u>	Add	<u>6</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>6</u>	<u>4</u>	<u>1</u>	<u>5</u>

## LESSON XXXVI.

## ORAL EXERCISES.

1. Five and 6 are how many? 6 and 15? 35 and 6? 6 and 45? 6 and 25?

2. Nine and 6 are how many? 6 and 19? 6 and 39? 14 and 8? 8 and 24?

3. How many are 7 and 4? 17 and 4? 18 and 5? 28 and 5? 36 and 6? 6 and 36?

4. How many are 8 and 4? 18 and 6? 35 and 7? 42 and 4? 41 and 5? 23 and 9?

5. How many are 3 and 4 and 5 and 6 and 2 and 3?

6. How many are 4 and 3 and 6 and 5 and 2 and 5 and 6 and 2?

7. Begin with 1 and count to 49 by adding 4 successively.

8. Begin with 2 and count to 52 by adding 5 successively.

## WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)		(1)	(2)	(3)	(4)	(5)	(6)	(7)
	16	15	27	46		2	2	5	4	4	5	3
Add	<u>46</u>	<u>37</u>	<u>45</u>	<u>17</u>		3	1	1	3	4	6	4
						2	2	2	4	4	1	5
	(1)	(2)	(3)	(4)		3	3	3	4	4	2	6
	24	23	44	35		1	4	4	5	5	3	4
Add	<u>18</u>	<u>27</u>	<u>48</u>	<u>27</u>		2	4	5	5	5	4	3
						2	4	5	4	5	5	2
	(1)	(2)	(3)	(4)		3	4	5	3	5	6	1
	36	46	26	44		2	4	5	2	5	1	6
Add	<u>14</u>	<u>35</u>	<u>25</u>	<u>47</u>		3	3	4	1	6	2	5
						2	3	4	2	6	3	3
	(1)	(2)	(3)	(4)		3	3	4	3	6	4	4
	36	26	45	55		2	3	4	4	6	5	6
Add	<u>43</u>	<u>62</u>	<u>37</u>	<u>36</u>	Add	<u>1</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>6</u>	<u>5</u>

## LESSON XXXVII.

## ORAL EXERCISES.

1. John has 8 marbles, and Charles 7: if Charles should give all of his marbles to John, how many marbles would John then have?



2. There are 6 chickens in one brood, and 7 chickens in another: how many chickens are there in both broods?

3. There are 9 forks in the basket, and 7 on the table: how many in both places?

4. A boy gave 18 cents for a slate, and 7 cents for a pencil: how many did he give for both?

5. How many are 8 pins and 7 pins? 18 pins and 7 pins? 16 pins and 7 pins? 14 pins and 7 pins? 17 pins and 7 pins? 19 pins and 7 pins?

6. How many are 4 and 7? 14 and 7? 34 and 7? 54 and 7? 44 and 7? 24 and 7?

7. How many are 6 and 7? 16 and 7? 46 and 7? 36 and 7? 56 and 7? 26 and 7?

8. How many are 8 and 7? 18 and 7? 38 and 7? 28 and 7? 48 and 7? 58 and 7? 78 and 7?

9. How many are 7 and 7? 17 and 7? 37 and 7? 27 and 7? 47 and 7? 57 and 7?

10. How many are 6 and 7? 16 and 7? 7 and 16? 36 and 7? 7 and 36? 7 and 25?

11. How many are 28 and 3? 28 and 5? 28 and 8? 28 and 4? 28 and 6? 28 and 8?

## WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)		(1)	(2)	(3)	(4)	(5)	(6)
	7	17	27	37		7	7	2	7	3	4
Add	<u>14</u>	<u>26</u>	<u>38</u>	<u>46</u>		7	2	7	3	7	7
						7	7	1	7	3	4
	(1)	(2)	(3)	(4)		7	2	2	7	7	7
	17	27	37	47		7	7	7	7	3	4
Add	<u>17</u>	<u>23</u>	<u>45</u>	<u>39</u>		7	7	1	7	7	4
						7	7	2	3	3	7
	(1)	(2)	(3)	(4)		7	7	2	7	7	4
	33	24	25	13		7	7	7	7	3	4
	21	32	44	55		7	7	2	7	7	7
Add	<u>17</u>	<u>27</u>	<u>37</u>	<u>27</u>	Add	<u>7</u>	<u>2</u>	<u>2</u>	<u>3</u>	<u>3</u>	<u>4</u>

## LESSON XXXVIII.

## ORAL EXERCISES.

1. How many are 5 and 7? 7 and 15? 7 and 35?  
6 and 35? 5 and 35? 8 and 35?

2. How many are 7 and 16? 6 and 16? 5 and  
16? 7 and 33? 6 and 33? 5 and 38?

3. How many are 13 and 7? 7 and 13? 33 and  
7? 7 and 43? 53 and 7? 63 and 7?

4. How many are 4 and 5 and 6 and 7 and 3 and  
4 and 2 and 7?

5. How many are 1 and 3 and 5 and 7 and 6 and  
4 and 6 and 3 and 5 and 6?

6. Begin with 2 and count to 52 by adding 5 suc-  
cessively.

7. Begin with 3 and count to 51 by adding 6 suc-  
cessively.

8. Begin with 0 and count to 49 by adding 7 suc-  
cessively.

9. Begin with 3 and count to 51 by adding 4 successively.

### WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)		(1)	(2)	(3)	(4)	(5)	(6)
	23	54	46	35		7	3	4	7	4	3
Add	<u>46</u>	<u>29</u>	<u>17</u>	<u>28</u>		<u>5</u>	<u>4</u>	<u>7</u>	<u>6</u>	<u>7</u>	<u>4</u>
	(1)	(2)	(3)	(4)		7	5	4	7	5	5
	36	44	66	25		5	7	5	6	6	6
Add	<u>25</u>	<u>55</u>	<u>14</u>	<u>37</u>		<u>5</u>	<u>5</u>	<u>7</u>	<u>7</u>	<u>7</u>	<u>7</u>
	(1)	(2)	(3)	(4)		7	7	4	6	2	6
	36	45	23	14		7	5	3	7	3	5
	41	33	43	54		7	7	7	7	4	4
Add	<u>12</u>	<u>16</u>	<u>18</u>	<u>27</u>	Add	<u>5</u>	<u>5</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>1</u>

## LESSON XXXIX.

### ORAL EXERCISES.

1. William walked 12 miles before dinner, and 8 miles after dinner: how many miles did he walk?

2. A school-house has 9 windows in the sides, and 8 windows in the ends: how many windows has it?

3. Mary wrote 7 lines in her copy-book, and 8 lines on a piece of paper: how many lines did she write?



4. Albert gave 15 cents for a top, and 8 cents for a pencil: how many cents did he pay for both?

5. How many are 8 boys and 8 boys? 18 boys and 8 boys? 16 boys and 8 boys? 14 boys and 8 boys? 15 boys and 8 boys?

6. How many are 4 and 8? 14 and 8? 34 and 8?  
24 and 8? 44 and 8? 64 and 8?

7. How many are 6 and 8? 16 and 8? 36 and 8?  
56 and 8? 46 and 8? 26 and 8?

8. How many are 5 and 8? 15 and 8? 45 and 8?  
65 and 8? 55 and 8? 35 and 8?

9. How many are 7 and 8? 17 and 8? 37 and 8?  
57 and 8? 47 and 8? 27 and 8?

10. How many are 9 and 8? 19 and 8? 8 and  
19? 8 and 29? 49 and 8? 8 and 49?

---

WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(5)	(6)
	28	38	18	48	8	2	2	8	8	4
Add	<u>14</u>	<u>26</u>	<u>38</u>	<u>42</u>	8	8	8	3	3	5
					8	2	2	2	4	6
	(1)	(2)	(3)	(4)	8	8	8	1	2	7
	18	28	58	38	8	2	2	8	8	8
Add	<u>25</u>	<u>17</u>	<u>23</u>	<u>19</u>	8	8	1	2	3	7
					8	8	2	3	4	6
	(1)	(2)	(3)	(4)	8	8	8	8	8	5
	44	43	35	18	8	8	8	8	8	4
	25	34	27	46	8	8	8	8	8	3
Add	<u>18</u>	<u>18</u>	<u>28</u>	<u>28</u>	8	8	8	8	8	2
					Add	<u>8</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
										<u>1</u>

---

LESSON XL.

ORAL EXERCISES.

1. How many are 3 and 5 and 7 and 4 and 6 and  
8 and 2 and 8?

2. How many are 8 and 7 and 5 and 3 and 2 and  
4 and 6 and 7?

3. How many are 9 and 5? 48 and 4? 53 and 7?  
45 and 8? 27 and 8? 44 and 6?

4. How many are 15 and 6? 44 and 7? 36 and  
8? 26 and 5? 18 and 3? 47 and 6?

5. How many are 16 and 5? 26 and 5? 46 and  
5? 17 and 8? 37 and 8? 57 and 8?

6. How many are 15 and 7? 25 and 7? 55 and  
7? 14 and 6? 34 and 6? 44 and 6? 18 and 3?  
28 and 3? 48 and 3?

7. A boy bought a slate for 25 cents, a piece of  
rubber for 8 cents, and a lead pencil for 5 cents: how  
many cents did he pay for all?

8. Begin with 3 and count to 51 by adding 6 suc-  
cessively.

9. Begin with 5 and count to 54 by adding 7 suc-  
cessively.

10. Begin with 0 and count to 48 by adding 8 suc-  
cessively.

11. Begin with 4 and count to 52 by adding 8 suc-  
cessively.

#### WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)		(1)	(2)	(3)	(4)	(5)	(6)
	35	44	27	36		8	3	6	6	2	8
Add	<u>44</u>	<u>46</u>	<u>38</u>	<u>47</u>		5	8	8	1	3	6
						8	4	6	8	4	4
	(1)	(2)	(3)	(4)		5	8	8	2	5	1
	41	34	56	44		8	1	6	8	8	2
Add	<u>13</u>	<u>26</u>	<u>27</u>	<u>29</u>		8	8	8	3	6	3
						8	2	6	8	7	4
	(1)	(2)	(3)	(4)		8	8	8	4	8	5
	17	25	33	17		8	3	6	8	8	6
	53	29	36	18		8	4	8	5	8	7
Add	<u>26</u>	<u>43</u>	<u>28</u>	<u>45</u>	Add	<u>5</u>	<u>5</u>	<u>6</u>	<u>6</u>	<u>7</u>	<u>8</u>

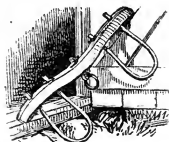
## LESSON XII.

## ORAL EXERCISES.

1. There are 7 cows in one pasture, and 9 cows in another: how many cows in both pastures?

2. John saw 9 pigeons on a tree, and 6 pigeons on the ground: how many pigeons did he see?

3. Wallace caught 8 fishes, and Willis caught 9: how many fishes did both catch?



4. A farmer gave 6 dollars for a yoke, and 9 dollars for a chain: how many dollars did he give for both?

5. How many are 5 plums and 9 plums? 15 plums and 9 plums? 17 plums and 9 plums? 13 plums and 9 plums? 16 plums and 9 plums? 14 plums and 9 plums?

6. How many are 3 and 9? 13 and 9? 43 and 9? 53 and 9? 23 and 9? 33 and 9?

7. How many are 5 and 9? 15 and 9? 45 and 9? 25 and 9? 35 and 9?

8. How many are 7 and 9? 17 and 9? 37 and 9? 57 and 9? 27 and 9? 47 and 9?

9. How many are 9 and 9? 29 and 9? 19 and 9? 49 and 9? 59 and 9?

10. How many are 8 and 9? 9 and 18? 35 and 9? 9 and 35? 24 and 9? 9 and 24?

11. How many are 6 and 9? 26 and 9? 9 and 26? 46 and 9? 9 and 46? 37 and 9? 9 and 37? 43 and 9? 9 and 43?

**Addition** is the process of finding the sum of two or more numbers.

The number obtained by adding two or more numbers is called the *Sum* or *Amount*.

---

WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)		(1)	(2)	(3)	(4)	(5)	(6)
	19	29	39	49		9	2	3	9	3	4
Add	<u>44</u>	<u>36</u>	<u>28</u>	<u>12</u>		9	2	2	3	9	9
						9	9	3	9	4	5
	(1)	(2)	(3)	(4)		9	2	9	4	5	9
	14	5	13	14		9	9	3	9	9	6
	15	14	22	15		9	9	9	9	9	9
	24	13	19	16		9	9	9	9	9	9
	23	25	16	18		9	9	9	9	9	9
Add	<u>19</u>	<u>39</u>	<u>29</u>	<u>29</u>	Add	<u>9</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>

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LESSON XLII.

WRITTEN EXERCISES IN ADDITION.

Copy and add the following examples :

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2	3	3	2	3	7	8	6	3	8
3	2	4	3	6	5	3	3	0	6
1	3	2	5	5	4	8	9	4	4
2	2	3	4	3	6	4	3	9	2
3	3	2	5	4	3	5	4	8	1
2	1	4	3	2	7	8	9	2	3
3	2	3	2	1	6	7	8	1	5
2	3	4	5	6	5	3	7	3	7
3	2	3	1	5	4	6	2	9	9
<u>1</u>	<u>1</u>	<u>1</u>	<u>5</u>	<u>3</u>	<u>3</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>2</u>
(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)		
22	13	24	25	28	16	25	17		
32	34	25	27	15	29	26	38		
24	22	16	18	24	28	19	15		
<u>21</u>	<u>27</u>	<u>34</u>	<u>29</u>	<u>27</u>	<u>27</u>	<u>27</u>	<u>26</u>		

Copy and read the following numbers:

(1)	(2)	(3)	(4)	(5)	(6)
100	110	120	100	122	135
101	111	121	110	133	134
102	112	122	120	144	136
103	113	123	130	155	164
104	114	124	140	166	167
105	115	125	150	177	177
106	116	126	160	188	186
107	117	127	170	199	185
108	118	128	180	200	144
<u>109</u>	<u>119</u>	<u>129</u>	<u>190</u>	<u>125</u>	<u>163</u>

Copy and add the following examples:

(1)	(2)	(3)	(4)	(5)	(6)
46	43	63	125	146	149
54	55	42	248	186	127
37	36	57	105	137	136
82	44	69	123	123	144
63	61	43	149	145	133
<u>45</u>	<u>38</u>	<u>46</u>	<u>208</u>	<u>233</u>	<u>245</u>
(7)	(8)	(9)	(10)	(11)	(12)
207	218	158	248	145	222
247	243	236	339	127	333
283	239	317	216	308	246
<u>195</u>	<u>216</u>	<u>245</u>	<u>138</u>	<u>299</u>	<u>184</u>

Copy and read the following numbers:

(1)	(2)	(3)	(4)	(5)	(6)
200	210	204	214	324	420
300	320	305	325	446	325
400	420	405	425	666	840
500	530	501	531	533	945
600	630	601	631	440	630
700	740	702	742	567	738
800	840	807	847	836	545
<u>900</u>	<u>940</u>	<u>906</u>	<u>947</u>	<u>924</u>	<u>456</u>

## SUBTRACTION.

## LESSON XLIII.



## ORAL EXERCISES.

1. Here is a beautiful picture. What are the men doing? How many are making the fence?

2. How many are 5 men less 2 men? 7 men less 2 men? 9 men less 2 men? 11 men less 2 men?

3. How many horses are 6 horses less 2 horses? 8 horses less 2 horses? 10 horses less 2 horses?

4. How many is 6 less 2? 8 less 2? 10 less 2?

5. How many fence-posts do you see? How many are 5 posts less 3 posts? 7 posts less 3 posts?

6. The farmer has 10 sheep, but only 3 of them are in sight. How many are 10 sheep less 3 sheep? 11 sheep less 3 sheep? 12 sheep less 3 sheep?

7. How many is 10 less 3? 11 less 3? 12 less 3?

8. How many are 11 men less 2 men? 21 men less 2 men? 41 men less 2 men? 61 men less 2 men?

9. How many are 12 sheep less 3 sheep? 22 sheep less 3 sheep? 32 sheep less 3 sheep? 52 sheep less 3 sheep?

10. Two from 11 leaves how many? 2 from 21? 2 from 41? 2 from 31? 2 from 51?

11. Three from 12 leaves how many? 3 from 22? 3 from 42? 3 from 32? 3 from 52? 3 from 62?

12. How many is 10 less 2? 20 less 2? 40 less 2? 30 less 2? 60 less 2? 50 less 2?

13. How many is 11 less 3? 21 less 3? 41 less 3? 51 less 3? 31 less 3? 61 less 3? 81 less 3?

TO TEACHERS.—The object of this and the next seven lessons is to teach the subtraction of any number less than 10, from any number not exceeding 100. The pupil should first be taught to take the smaller number from the larger number *as a whole*.

#### WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
From	11	21	41	52	31	61	82	72	92
Take	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
From	13	23	41	51	66	74	72	49	29
Take	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>3</u>	<u>2</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
From	10	20	30	40	50	60	70	80	90
Take	<u>1</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>

## LESSON XLIV.

## ORAL EXERCISES.

1. Mary has 12 raisins: if she eat 4 of them, how many will she have left?

2. Susan has picked 11 peaches and 4 pears: how many more peaches has she than pears?



3. Mr. Smith has 13 hogs: if he sell 4 of them to a drover, how many will he have left?

4. Four pears from 11 pears leave how many? 4 pears from 21 pears? 4 pears from 41 pears? 4 pears from 31 pears?

5. Four from 12 leaves how many? 4 from 22? 4 from 42? 4 from 32? 4 from 52?

6. Four from 7 leaves how many? 4 from 17? 4 from 37? 4 from 57? 4 from 47? 4 from 27? 4 from 67? 4 from 77?

7. How many is 13 less 4? 23 less 4? 43 less 4? 33 less 4? 63 less 4? 53 less 4?

8. How many is 11 less 4? 21 less 4? 41 less 4? 61 less 4? 31 less 4? 51 less 4?

9. Begin with 36 and count back to 0 by subtracting 4 successively, thus: 36, 32, 28, 24, etc.

10. Begin with 43 and count back to 3 by subtracting 4 successively.

11. Begin with 33 and count back to 0 by subtracting 3 successively.

12. Begin with 35 and count back to 1 by subtracting 2 successively.

## WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
From	17	27	47	36	56	88	35	49	44
Take	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
From	12	22	42	52	13	23	43	63	53
Take	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
From	11	21	41	61	14	13	23	43	33
Take	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
From	46	27	48	66	37	78	88	96	66
Take	<u>14</u>	<u>14</u>	<u>24</u>	<u>44</u>	<u>24</u>	<u>24</u>	<u>55</u>	<u>74</u>	<u>44</u>

## LESSON XLV.

## ORAL EXERCISES.

1. In a spelling exercise, Martha wrote 12 words on her slate, and misspelled 5 of them: how many words did she spell correctly?



2. A farmer has 13 chickens: if he sell 5 of them, how many will he have left?

3. Alice made 14 figures on her slate, and then erased 5 of them: how many figures were left?

4. Five stars from 11 stars leave how many? 5 stars from 21 stars? 5 stars from 31 stars? 5 stars from 51 stars?

5. Five from 12 leaves how many? 5 from 22? 5 from 42? 5 from 62? 5 from 32?

6. How many is 14 less 5? 24 less 5? 44 less 5? 34 less 5? 54 less 5? 64 less 5?

7. How many is 27 less 5? 38 less 5? 42 less 5? 61 less 5? 59 less 5?

8. Five from 13 leaves how many? 5 from 23? 5 from 43? 5 from 63? 5 from 53? 5 from 33? 5 from 63? 5 from 83?

9. How many is 19 less 5? 29 less 5? 49 less 5? 39 less 5? 53 less 5? 63 less 5? 73 less 5? 43 less 5? 33 less 5?

10. Begin with 43 and count back to 3 by subtracting 5 successively.

11. Begin with 52 and count back to 2 by subtracting 5 successively.

---

WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
From	14	24	44	12	22	42	23	43	63
Take	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
From	45	67	54	39	77	65	57	64	89
Take	<u>23</u>	<u>45</u>	<u>53</u>	<u>25</u>	<u>55</u>	<u>45</u>	<u>45</u>	<u>33</u>	<u>47</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
From	21	31	33	32	50	44	48	53	54
Take	<u>15</u>	<u>15</u>	<u>15</u>	<u>15</u>	<u>25</u>	<u>25</u>	<u>25</u>	<u>35</u>	<u>35</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
From	32	42	52	33	43	53	22	32	52
Take	<u>13</u>	<u>14</u>	<u>23</u>	<u>24</u>	<u>24</u>	<u>35</u>	<u>13</u>	<u>24</u>	<u>35</u>

TO TEACHERS.—Teach the pupil how to proceed when the lower unit figure is greater than the upper. Let him first learn the *how* and afterward the *why*.

## LESSON XLVI.

## ORAL EXERCISES.

1. Harry bought 15 slate pencils, and gave 6 of them to his sister: how many had he left?



2. A farmer has 13 oxen in one field, and 6 in another: how many oxen in the first field more than in the second?

3. Jane is 14 years old, and her brother is 6 years younger: how old is her brother?

4. Six raisins from 12 raisins leave how many raisins? 6 raisins from 22 raisins? 6 raisins from 42 raisins? 6 raisins from 11 raisins?

5. Six from 13 leaves how many? 6 from 23? 6 from 43? 6 from 33? 6 from 63?

6. Six from 18 leaves how many? 6 from 28? 6 from 48? 6 from 58? 6 from 78? 6 from 68?

7. How many is 15 less 6? 25 less 6? 45 less 6? 65 less 6? 35 less 6? 55 less 6?

8. How many is 14 less 6? 34 less 6? 54 less 6? 24 less 6? 44 less 6? 64 less 6?

9. How many is 14 less 6? 23 less 6? 35 less 6? 21 less 6? 42 less 6? 53 less 6?

10. Begin with 36 and count back to 0 by subtracting 6 successively.

11. Begin with 33 and count back to 3 by subtracting 6 successively.

12. Begin with 42 and count back to 0 by subtracting 6 successively.

## WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
From	15	25	35	14	34	54	13	43	63
Take	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
From	25	35	45	34	54	64	33	43	63
Take	<u>16</u>	<u>26</u>	<u>26</u>	<u>16</u>	<u>26</u>	<u>36</u>	<u>26</u>	<u>36</u>	<u>56</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
From	22	44	31	43	25	54	62	63	31
Take	<u>14</u>	<u>35</u>	<u>16</u>	<u>26</u>	<u>16</u>	<u>45</u>	<u>13</u>	<u>34</u>	<u>14</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
From	137	257	146	188	296	267	168	149
Take	<u>24</u>	<u>45</u>	<u>36</u>	<u>45</u>	<u>56</u>	<u>44</u>	<u>55</u>	<u>38</u>



## LESSON XLVII.

## ORAL EXERCISES.

1. Alice is 14 years old, and her brother is 7 years younger than she: how old is her brother?

2. There are 16 knives in a basket: if 7 of them be placed on the table, how many knives will remain in the basket?

3. A hen has 11 chickens, but a hawk carried off 7 of them: how many chickens were left?

4. Seven apples from 12 apples leave how many? 7 apples from 22 apples? 7 apples from 42 apples? 7 apples from 52 apples? 7 apples from 32 apples?

5. Seven from 15 leaves how many? 7 from 25?



7 from 55? 7 from 85? 7 from 65? 7 from 45?  
7 from 35? 7 from 75?

6. How many is 16 less 7? 36 less 7? 26 less 7?  
46 less 7? 66 less 7? 56 less 7?

7. How many is 14 less 7? 44 less 7? 54 less 7?  
64 less 7? 84 less 7? 34 less 7? 74 less 7?  
24 less 7? 84 less 7?

8. How many is 19 less 7? 29 less 7? 59 less 7?  
68 less 7? 38 less 7? 32 less 7? 44 less 7?  
33 less 7? 35 less 7?

9. Begin with 35 and count back to 0 by subtracting 7 successively.

10. Begin with 40 and count back to 5 by subtracting 7 successively.

---

WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
From	16	36	46	21	41	61	25	55	75
Take	<u>7</u>	<u>7</u>	<u>17</u>	<u>7</u>	<u>17</u>	<u>27</u>	<u>7</u>	<u>17</u>	<u>47</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
From	73	45	84	87	55	66	63	50	44
Take	<u>47</u>	<u>27</u>	<u>57</u>	<u>67</u>	<u>37</u>	<u>47</u>	<u>27</u>	<u>37</u>	<u>27</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
From	145	247	365	473	586	693	287	364
Take	<u>36</u>	<u>143</u>	<u>246</u>	<u>344</u>	<u>277</u>	<u>475</u>	<u>176</u>	<u>246</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
From	234	344	454	364	474	284	204	354
Take	<u>143</u>	<u>153</u>	<u>284</u>	<u>246</u>	<u>187</u>	<u>167</u>	<u>185</u>	<u>245</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
From	205	333	415	616	427	384	532	516
Take	<u>127</u>	<u>227</u>	<u>345</u>	<u>508</u>	<u>276</u>	<u>279</u>	<u>348</u>	<u>347</u>

## LESSON XLVIII.

## ORAL EXERCISES.

1. Charles found 13 quinces on a quince-tree, and picked 8 of them: how many were left?



2. John found 15 nuts, and ate 8 of them: how many had he left?

3. Kate had 22 problems to solve, and she has solved 8 of them: how many has she to solve?

4. John bought 25 oranges, and sold 8 of them before dinner: how many had he left?

5. How many are 14 nuts less 8 nuts? 24 nuts less 8 nuts? 44 nuts less 8 nuts? 34 nuts less 8 nuts? 54 nuts less 8 nuts?

6. How many is 12 less 8? 32 less 8? 52 less 8? 62 less 8? 42 less 8? 22 less 8?

7. How many is 16 less 8? 26 less 8? 46 less 8? 36 less 8? 56 less 8? 76 less 8? 66 less 8?

8. Eight from 15 leaves how many? 8 from 35? 8 from 40? 8 from 30? 8 from 59?

9. Begin with 40 and count back to 0 by subtracting 8 successively.

10. Begin with 45 and count back to 5 by subtracting 8 successively.

## WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
From	13	33	53	12	42	62	17	27	57
Take	<u>8</u>	<u>18</u>	<u>28</u>	<u>8</u>	<u>18</u>	<u>38</u>	<u>8</u>	<u>18</u>	<u>38</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
From	25	55	65	24	44	63	83	51	71
Take	<u>18</u>	<u>28</u>	<u>38</u>	<u>18</u>	<u>28</u>	<u>38</u>	<u>58</u>	<u>36</u>	<u>25</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
From	148	256	198	273	366	354	275	486
Take	<u>65</u>	<u>76</u>	<u>76</u>	<u>65</u>	<u>84</u>	<u>55</u>	<u>87</u>	<u>92</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
From	422	433	344	555	866	477	688	399
Take	<u>364</u>	<u>225</u>	<u>256</u>	<u>367</u>	<u>276</u>	<u>248</u>	<u>586</u>	<u>157</u>

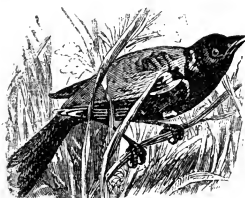
## LESSON XLIX.

### ORAL EXERCISES.

1. Clara had 17 words to write, and she has written 9: how many words has she yet to write?

2. John has 15 marbles, and Samuel has 9 less than John: how many marbles has Samuel?

3. A grocer has 25 sacks of flour: when he has sold 9 sacks, how many will he have left?



4. Sixteen birds lit on a tree, and 9 of them soon flew to the ground: how many were left on the tree?

5. How many will remain if you take 9 pins from 13 pins? 9 pins from 23 pins? 9 pins from 43 pins? 9 pins from 63 pins?

6. How many is 15 less 9? 35 less 9? 55 less 9? 45 less 9? 65 less 9?

7. How many is 18 less 9? 38 less 9? 48 less 9? 58 less 9? 78 less 9? 68 less 9?

8. Begin with 45 and count back to 0 by subtracting 9 successively.

9. Begin with 40 and count back to 4 by subtracting 9 successively.

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WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
From	17	37	47	26	56	86	35	45	55
Take	<u>9</u>	<u>19</u>	<u>29</u>	<u>19</u>	<u>29</u>	<u>49</u>	<u>19</u>	<u>29</u>	<u>39</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
From	24	44	64	53	63	83	42	52	72
Take	<u>9</u>	<u>19</u>	<u>29</u>	<u>39</u>	<u>29</u>	<u>59</u>	<u>29</u>	<u>49</u>	<u>59</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
From	236	135	344	453	363	172	284	464
Take	<u>67</u>	<u>118</u>	<u>226</u>	<u>225</u>	<u>244</u>	<u>154</u>	<u>155</u>	<u>336</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
From	344	456	265	237	473	686	468	557
Take	<u>283</u>	<u>367</u>	<u>187</u>	<u>178</u>	<u>358</u>	<u>496</u>	<u>279</u>	<u>328</u>

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LESSON L.

REVIEW.

1. Three from 31 leaves how many? 5 from 31?  
7 from 31? 9 from 31? 6 from 31?

2. Four from 43 leaves how many? 6 from 43?  
8 from 43? 7 from 43? 9 from 43?

3. Five from 44 leaves how many? 7 from 44?  
9 from 44? 6 from 44? 8 from 44?

4. How many is 52 less 4? 52 less 6? 52 less 8?  
52 less 3? 52 less 5? 52 less 7? 52 less 9?

5. How many is 55 less 6? 55 less 8? 55 less 5? 55 less 7? 55 less 9? 55 less 10?

6. How many is 60 less 3? 60 less 7? 60 less 9? 60 less 4? 60 less 6? 60 less 8? 60 less 5?

**Subtraction** is the process of finding the difference between two numbers.

The number obtained by subtracting one number from another is called the *Difference* or *Remainder*.

### WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
From	6	8	9	7	9	7	8	6	9	7	8	9
Take	<u>3</u>	<u>5</u>	<u>6</u>	<u>4</u>	<u>5</u>	<u>3</u>	<u>4</u>	<u>2</u>	<u>7</u>	<u>5</u>	<u>6</u>	<u>8</u>

	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
From	13	15	14	16	15	17	16	19
Take	<u>5</u>	<u>7</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>7</u>	<u>8</u>

	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)
From	22	23	44	55	46	34	35	42
Take	<u>16</u>	<u>17</u>	<u>28</u>	<u>29</u>	<u>28</u>	<u>16</u>	<u>17</u>	<u>25</u>

	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
From	122	233	148	255	249	234	159	249
Take	<u>46</u>	<u>57</u>	<u>68</u>	<u>79</u>	<u>67</u>	<u>46</u>	<u>67</u>	<u>85</u>

	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)
From	232	344	356	438	242	459	387	346
Take	<u>145</u>	<u>276</u>	<u>218</u>	<u>347</u>	<u>126</u>	<u>339</u>	<u>258</u>	<u>185</u>

	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)
From	493	545	573	999	796	307	606	704
Take	<u>227</u>	<u>366</u>	<u>383</u>	<u>666</u>	<u>669</u>	<u>249</u>	<u>546</u>	<u>665</u>

	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)
From	581	494	301	409	603	350	270	600
Take	<u>309</u>	<u>305</u>	<u>129</u>	<u>227</u>	<u>542</u>	<u>169</u>	<u>165</u>	<u>321</u>

## LESSON LI.

## PROMISCUOUS ORAL EXERCISES.

1. Harry is 12 years old, and Charles is 9: what is the sum of their ages?

2. Mary is 15 years old, and Kate is 8: what is the difference between their ages?

3. Mr. Jones has 20 pears in his basket: if he give a little boy 4 of them, how many pears will remain in the basket?

4. Frank sold four oranges for 16 cents, and a pint of nuts for 4 cents: how many cents did he receive?



5. If you add 9 urns and 6 urns and 5 urns, what will the sum be?

6. If you take 6 tops from 15 tops, what will the difference be?

7. A farmer has 16 cows in one pasture, and 7 in another: how many cows in both pastures?

8. There are 25 eggs in a basket, and 8 in a nest: how many more eggs in the basket than in the nest?

9. Mr. Gray has 15 peach trees in his orchard, and 6 in his garden: how many more peach trees in the orchard than in the garden?

10. Clara has 16 pearl beads, and Jane has 9: if Jane should give hers to Clara, how many beads would Clara then have?

11. What is the number obtained by adding two or more numbers together called?

12. What is the *sum* of 27 and 8? 27 and 4? 25 and 4? 25 and 8? 25 and 6?

13. What is the *amount* obtained by adding 32 and 8? 36 and 7? 44 and 6?

14. What is the number obtained by subtracting one number from another called?

15. What is the *difference* between 9 and 15? 8 and 24? 6 and 21?

16. What will be the *remainder* if you take 7 from 33? 6 from 42?

17. When we take one number from another what is the process called?

18. Subtract 7 from 15. 7 from 35. 8 from 36.

19. What is the *sum* of 8 and 45? What is their *difference*?

20. Willis has 15 plums: how many more must he pick to have 25 plums?

21. How many blocks must you add to 16 blocks to make 23 blocks?

22. A coat cost 25 dollars, and a vest 16 dollars: how much did the coat cost more than the vest?

23. How many are 5 and 4 and 6 and 8 less 9?

24. How many are 8 and 9 less 6 less 5?

25. How many are 8 and 5 and 6 less 3 less 4 less 6?

26. How many are 5 and 6 and 7 less 4 less 5 less 3?

27. How many are 23 and 5 and 8 and 4 less 5 less 6 less 7?

## MULTIPLICATION.

## LESSON LI.



## ORAL EXERCISES.

1. What season of the year does this picture represent? What are the boys doing in the orchard?

2. How many boys are twice 1 boy? 3 times 1 boy?

3. How many barrels are empty? How many are 4 times 1 barrel?

How many are twice 1? 3 times 1? 4 times 1?

4. How many apple trees in sight? How many are 5 times 1 tree? 6 times 1 tree?

How many are 5 times 1? 6 times 1?

5. How many are 7 times 1 apple? 8 times 1 apple?  
9 times 1 apple? 10 times 1 apple?

How many are 7 times 1? 8 times 1? 10 times 1?

To TEACHERS.—Develop the idea of multiplication, using visible objects, as books, blocks, pencils, etc. Division may be taught orally in connection with multiplication.

*How many are*

1 time 1?	.	.	.	.	.	.	.	.	.	.	1
2 times 1?	.	.	.	.	.	.	.	.	.	1	1
3 times 1?	.	.	.	.	.	.	.	.	1	1	1
4 times 1?	.	.	.	.	.	.	.	1	1	1	1
5 times 1?	.	.	.	.	.	.	1	1	1	1	1
6 times 1?	.	.	.	.	.	1	1	1	1	1	1
7 times 1?	.	.	.	.	1	1	1	1	1	1	1
8 times 1?	.	.	.	1	1	1	1	1	1	1	1
9 times 1?	.	.	1	1	1	1	1	1	1	1	1
10 times 1?	.	1	1	1	1	1	1	1	1	1	1

## LESSON LIII.

### ORAL EXERCISES.

1. How many boys are in the field? How many are twice 2 boys?

2. How many barrels are filled with apples? How many are 3 times 2 barrels?

How many are twice 2? 3 times 2?

3. How many are 4 times 2 barrels? 5 times 2 barrels? 6 times 2 barrels?

4. How many are 4 times 2? 5 times 2? 6 times 2?

5. How many are 7 times 2 apples? 8 times 2 apples?

6. How many are 7 times 2? 8 times 2?

7. How many are 9 times 2 trees? 10 times 2 trees?

8. How many are 9 times 2 men? 9 times 2 deer? 10 times 2 men? 10 times 2 deer?

How many are 9 times 2? 10 times 2?

9. How many are 3 times 2 tops? 4 times 2 tops? 2 times 2 tops? 5 times 2 tops? 7 times 2 tops? 6 times 2 tops? 8 times 2 tops? 10 times 2 tops? 9 times 2 tops?

TO TEACHERS.—Show the pupil, that 3 times 2 is the *sum* of three 2's; that 4 times 2 is the *sum* of four 2's, etc.; and when the table is studied or recited, require the corresponding number of 2's at the right to be added. The subsequent tables should be studied in the same manner.

*How many are*

1 time 2?	.	.	.	.	.	.	.	.	.	.	.	2
2 times 2?	.	.	.	.	.	.	.	.	.	.	.	2 2
3 times 2?	.	.	.	.	.	.	.	.	.	.	.	2 2 2
4 times 2?	.	.	.	.	.	.	.	.	.	.	.	2 2 2 2
5 times 2?	.	.	.	.	.	.	.	.	.	.	.	2 2 2 2 2
6 times 2?	.	.	.	.	.	.	.	.	.	.	.	2 2 2 2 2 2
7 times 2?	.	.	.	.	.	.	.	.	.	.	.	2 2 2 2 2 2 2
8 times 2?	.	.	.	.	.	.	.	.	.	.	.	2 2 2 2 2 2 2 2
9 times 2?	.	.	.	.	.	.	.	.	.	.	.	2 2 2 2 2 2 2 2 2
10 times 2?	.	.	.	.	.	.	.	.	.	.	.	2 2 2 2 2 2 2 2 2 2

10. How many are 2 times 2? 4 times 2? 3 times 2? 5 times 2? 7 times 2? 6 times 2? 9 times 2? 10 times 2? 8 times 2?

11. How many are 5 times 1? 5 times 2? 7 times 1? 7 times 2? 9 times 1? 9 times 2? 6 times 1? 6 times 2?

12. How many are 4 times 1? 4 times 2? 8 times 1? 8 times 2? 7 times 1? 7 times 2?

13. How many times 2 are 4? 6? 8? 10? 12? 14? 16? 18? 20?

## WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Multiply	2	2	2	2	2	2	2	2
By . . .	3	5	4	6	9	8	7	2
	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Multiply	1	1	2	1	2	2	1	1
By . . .	6	9	7	8	4	6	7	5
	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>

	(1)	(2)	(3)	(4)	(5)	(6)
Multiply	22	21	12	22	11	21
By . . .	4	3	4	3	8	4
	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>

	(1)	(2)	(3)	(4)	(5)	(6)
Multiply	11	22	11	12	20	10
By . . .	6	4	9	3	4	9
	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>

## LESSON LIV.

## ORAL EXERCISES.

1. A cart has 2 wheels: how many wheels have 4 carts?

SOLUTION.—4 times 2 wheels are 8 wheels: 4 carts have 8 wheels.



2. A drayman earns 2 dollars a day: how many dollars will he earn in 6 days?

3. John bought 5 lemons at 2 cents apiece: how many cents did they cost?

4. If one bag hold 2 bushels of oats, how many bushels will 8 bags hold?

5. What will 6 bushels of apples cost at 1 dollar a bushel? At 2 dollars a bushel?

6. If 2 boys can sit at one desk, how many can sit at 8 desks? How many at 10 desks?

7. If 1 step is 2 feet, how many feet are there in 7 steps? In 5 steps? In 6 steps?

8. If 2 horses make a span, how many horses will make 4 span? 8 span?

9. Albert saw 5 yoke of oxen: how many oxen did he see?

### WRITTEN EXERCISES.

Copy and complete these tables:

<i>Model.</i>	(1)	(2)	(3)	(4)	(5)
$1 \times 1 = 1$	$2 \times 1$	$2 \times 2$	$2 \times 2$	$5 \times 1$	$5 \times 2$
$1 \times 2 = 2$	$2 \times 2$	$2 \times 4$	$4 \times 2$	$1 \times 7$	$4 \times 2$
$1 \times 3 = 3$	$2 \times 3$	$2 \times 6$	$6 \times 2$	$7 \times 2$	$6 \times 2$
$1 \times 4 = 4$	$2 \times 4$	$2 \times 8$	$8 \times 2$	$2 \times 6$	$8 \times 2$
$1 \times 5 = 5$	$2 \times 5$	$2 \times 3$	$3 \times 2$	$1 \times 5$	$7 \times 2$
$1 \times 6 = 6$	$2 \times 6$	$2 \times 5$	$5 \times 2$	$8 \times 1$	$9 \times 1$
$1 \times 7 = 7$	$2 \times 7$	$2 \times 7$	$7 \times 2$	$2 \times 5$	$9 \times 2$
$1 \times 8 = 8$	$2 \times 8$	$2 \times 1$	$9 \times 2$	$4 \times 2$	$8 \times 1$
$1 \times 9 = 9$	$2 \times 9$	$2 \times 9$	$9 \times 1$	$3 \times 2$	$4 \times 1$

TO TEACHERS.—Teach the pupil that the sign of multiplication ( $\times$ ) when placed between two numbers, shows that the number *before* it is to be multiplied by the number *after* it.  $3 \times 2$  is to be read 3 multiplied by 2, which is the same as 2 times 3.  $3 \times 2 = 6$  may be read, for convenience, 3 times 2 equal 6.

## LESSON LV.

### ORAL EXERCISES.



1. How many leaves are 2 times 3 leaves? 3 times 3 leaves? 4 times 3 leaves?



8. How many are 2 times 3? 3 times 3? 4 times 3? 5 times 3? 8 times 3? 10 times 3?

9. How many are 5 times 3? 3 times 5? 7 times 3? 3 times 7? 9 times 3? 3 times 9?

10. How many are 3 times 2? 3 times 3? 5 times 1? 5 times 2? 5 times 3? 8 times 1? 8 times 2? 8 times 3? 6 times 3?

11. How many times 3 are 6? 9? 15? 12? 18? 24? 21? 27? 30?

### WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Multiply	3	3	3	3	3	3	3	3	3
By . . .	2	4	6	8	9	3	1	7	5

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Multiply	3	2	1	2	3	2	3	1	2
By . . .	6	9	8	7	5	4	6	5	6

	(1)	(2)	(3)	(4)	(5)	(6)
Multiply	33	32	31	30	13	23
By . . .	3	4	8	7	3	2

	(1)	(2)	(3)	(4)	(5)	(6)
Multiply	33	33	33	22	22	22
By . . .	4	5	6	7	8	9

To TEACHERS.—Teach the pupil how to proceed when the product of the two unit figures exceeds 9.

## LESSON LVI.

### ORAL EXERCISES.

1. Each finger has 3 joints: how many joints have 2 fingers? 3 fingers?

2. If each stool has 3 legs, how many legs have 3 stools? 4 stools? 5 stools?

3. At 3 cents apiece, what will 8 lemons cost?
4. If a barrel will hold 3 bushels of apples, how many bushels will 7 barrels hold?
5. A drover bought 9 sheep at 3 dollars a head: how many dollars did he pay for them?
6. Harry caught 3 fishes in his net, and John caught 6 times as many as Harry: how many did John catch?
7. A hunter killed 3 squirrels, and saw 5 times as many: how many squirrels did he see?
8. What will 8 quarts of chestnuts cost, at 3 cents a quart?
9. What will 7 spools of thread cost, at 3 cents a spool?
10. There are 3 feet in a yard: how many feet are there in 6 yards?

---

WRITTEN EXERCISES.

Copy and complete these tables:

(1)	(2)	(3)	(4)	(5)
$3 \times 1$	$3 \times 3$	$3 \times 3$	$2 \times 4$	$6 + 2$
$3 \times 2$	$3 \times 5$	$5 \times 3$	$3 \times 4$	$7 + 3$
$3 \times 3$	$3 \times 7$	$7 \times 3$	$1 \times 4$	$8 + 1$
$3 \times 4$	$3 \times 9$	$9 \times 3$	$2 \times 5$	$9 + 2$
$3 \times 5$	$3 \times 8$	$8 \times 3$	$2 \times 3$	$9 + 3$
$3 \times 6$	$3 \times 6$	$6 \times 3$	$3 \times 5$	$8 + 3$
$3 \times 7$	$3 \times 4$	$4 \times 3$	$2 \times 4$	$9 + 1$
$3 \times 8$	$3 \times 2$	$2 \times 3$	$1 \times 6$	$7 + 2$
$3 \times 9$	$3 \times 5$	$3 \times 3$	$2 \times 7$	$5 + 3$

TO TEACHERS.—Explain the sign of addition (+) used in the 5th table, and teach the pupil to read it *plus*, as 6 *plus* 2; 7 *plus* 3, etc.

## LESSON LVII.

## ORAL EXERCISES.

1. How many rabbits are 2 times 4 rabbits? 3 times 4 rabbits? 4 times 4 rabbits?



2. Once 4 sheep are how many sheep? Twice 4 sheep? 3 times 4 sheep? 4 times 4 sheep?

How many are 2 times 3? 3 times 3? 4 times 3?



3. Here are how many groups of arrows? Five times 4 arrows are how many arrows? 6 times 4 arrows? 3 times 4 arrows?

4. How many girls are 5 times 4 girls? 6 times 4 girls? 4 times 4 girls?

How many are 5 times 4? 6 times 4? 4 times 4?



5. How many hoofs has each of these horses? How many hoofs have 7 horses? 8 horses?

6. Seven times 4 shoes are how many shoes? 8 times 4 shoes? 6 times 4 shoes?

How many are 7 times 4? 8 times 4? 6 times 4?

7. How many are 9 times 4 fingers? 10 times 4 fingers? 9 times 4 arrows? 10 times 4 arrows?

How many are 9 times 4? 10 times 4? 4 times 10?

8. How many are 2 times 4 hats? 4 times 4 hats?  
 5 times 4 hats? 3 times 4 hats? 7 times 4 hats?  
 9 times 4 hats? 8 times 4 hats? 6 times 4 hats?

*How many are*

---

1 time 4?	. . . . .	4
2 times 4?	. . . . .	4 4
3 times 4?	. . . . .	4 4 4
4 times 4?	. . . . .	4 4 4 4
5 times 4?	. . . . .	4 4 4 4 4
6 times 4?	. . . . .	4 4 4 4 4 4
7 times 4?	. . . . .	4 4 4 4 4 4 4
8 times 4?	. . . . .	4 4 4 4 4 4 4 4
9 times 4?	. . . . .	4 4 4 4 4 4 4 4 4
10 times 4?	. . . . .	4 4 4 4 4 4 4 4 4 4

9. How many are 2 times 4? 3 times 4? 5 times 4?  
 6 times 4? 4 times 4? 8 times 4? 7 times 4?  
 9 times 4? 3 times 4? 10 times 4?

10. Five times 4 are how many? 7 times 4? 4 times 7?  
 6 times 4? 4 times 6? 8 times 4? 4 times 8?  
 9 times 4? 4 times 9?

#### WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Multiply	4	4	4	4	4	4	4	4
By . . .	3	5	7	9	8	6	4	2

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Multiply	3	2	3	3	2	3	3	2
By . . .	4	4	7	9	8	6	5	4

	(1)	(2)	(3)	(4)	(5)	(6)
Multiply	44	43	42	41	40	41
By . . .	2	3	4	8	9	5

	(1)	(2)	(3)	(4)	(5)	(6)
Multiply	24	43	34	44	23	34
By . . .	5	4	3	6	7	8

## LESSON LVIII.

## ORAL EXERCISES.

1. There are 4 fingers on one hand: how many fingers are there on 2 hands? 3 hands? 5 hands?

2. There are 4 quarts in a gallon: how many quarts are there in 6 gallons? 7 gallons?



3. An elk has 4 legs: how many legs have 4 elks? 6 elks? 5 elks?

4. Four girls have 4 roses each: how many roses have they all?

5. A wagon has 4 wheels: how many wheels have 7 wagons? 5 wagons?

6. What will 8 loads of wood cost, at 4 dollars a load? At 3 dollars a load?

7. What will 7 pairs of shoes cost, at 4 dollars a pair? At 3 dollars a pair?

8. What will 10 oranges cost, at 4 cents apiece?

9. If a sheet of paper make 4 pages, how many pages will 9 sheets make?

10. If a man walk 4 miles in an hour, how far will he walk in 8 hours?

11. How many are 3 times 2? 3 times 3? 3 times 4? 5 times 3? 5 times 4? 7 times 2? 7 times 3? 7 times 4?

12. How many times 4 are 8? 12? 20? 16? 24? 32? 28? 36?

## WRITTEN EXERCISES.

Copy and complete these tables :

(1)	(2)	(3)	(4)	(5)
$4 \times 1 =$	$4 \times 3$	$3 \times 4$	$4 \times 4$	$4 + 4$
$4 \times 2 =$	$4 \times 1$	$1 \times 4$	$6 \times 3$	$6 + 3$
$4 \times 3 =$	$4 \times 5$	$5 \times 4$	$6 \times 2$	$6 + 4$
$4 \times 4 =$	$4 \times 7$	$7 \times 4$	$5 \times 4$	$5 + 4$
$4 \times 5 =$	$4 \times 2$	$2 \times 4$	$5 \times 3$	$5 + 2$
$4 \times 6 =$	$4 \times 4$	$4 \times 4$	$5 \times 2$	$7 + 4$
$4 \times 7 =$	$4 \times 6$	$6 \times 4$	$7 \times 4$	$8 + 3$
$4 \times 8 =$	$4 \times 9$	$9 \times 4$	$8 \times 3$	$9 + 4$
$4 \times 9 =$	$4 \times 8$	$8 \times 4$	$9 \times 2$	$9 + 3$

## LESSON LIX.

## ORAL EXERCISES.



1. How many bunches of grapes in each of these groups? In 2 groups? In 3 groups?

2. How many are 2 times 5 doves? 3 times 5 doves? 4 times 5 doves?

How many are 2 times 5? 3 times 5? 4 times 5?



3. The leaves of a flower are called *petals*. How many petals has each of these pretty violets?

4. Jane has picked 5 violets, and Mary 5 times as many as Jane: how many violets has Mary picked?

5. How many petals are 4 times 5 petals? 5 times 5 petals? 6 times 5 petals?

How many are 4 times 5? 5 times 5? 6 times 5?

6. Edward has 5 marbles, and Albert 7 times as many as Edward: how many marbles has Albert?



7. Seven times 5 marbles are how many marbles?  
8 times 5 marbles?

How many are 7 times 5? 8 times 5? 5 times 8?



8. Mary kept the account in a spelling match between two classes. The first class misspelled 9 times 5 words; the second 10 times 5 words: how many words did each class misspell?

How many are 9 times 5? 10 times 5? 5 times 10?

9. How many are 3 times 5 cents? 5 times 5 cents? 4 times 5 cents? 7 times 5 cents? 6 times 5 cents? 9 times 5 cents? 10 times 5 cents? 8 times 5 cents?



*How many are*

1 time 5?	.	.	.	.	.	.	.	.	.	.	.	5
2 times 5?	.	.	.	.	.	.	.	.	.	.	.	5 5
3 times 5?	.	.	.	.	.	.	.	.	.	.	.	5 5 5
4 times 5?	.	.	.	.	.	.	.	.	.	.	.	5 5 5 5
5 times 5?	.	.	.	.	.	.	.	.	.	.	.	5 5 5 5 5
6 times 5?	.	.	.	.	.	.	.	.	.	.	.	5 5 5 5 5 5
7 times 5?	.	.	.	.	.	.	.	.	.	.	.	5 5 5 5 5 5 5
8 times 5?	.	.	.	.	.	.	.	.	.	.	.	5 5 5 5 5 5 5 5
9 times 5?	.	.	.	.	.	.	.	.	.	.	.	5 5 5 5 5 5 5 5 5
10 times 5?	.	.	.	.	.	.	.	.	.	.	.	5 5 5 5 5 5 5 5 5 5

10. How many are 3 times 5? 6 times 5? 9 times 5? 10 times 5? 8 times 5? 7 times 5? 5 times 5? 4 times 5? 2 times 5?

11. Four times 5 are how many? 5 times 4? 8 times 5? 5 times 5? 7 times 5? 3 times 5? 5 times 3? 9 times 5?

12. How many are 7 times 3? 8 times 3? 9 times 3? 7 times 4? 8 times 4? 9 times 4? 7 times 5? 8 times 5? 9 times 5?

13. How many times 5 are 10? 15? 20? 30? 40? 50? 25? 35? 45?

---

WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Multiply	5	5	5	5	5	5	5	5
By . . .	<u>5</u>	<u>4</u>	<u>7</u>	<u>6</u>	<u>9</u>	<u>8</u>	<u>2</u>	<u>3</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Multiply	3	4	7	6	9	8	2	5
By . . .	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>

	(1)	(2)	(3)	(4)	(5)	(6)
Multiply	54	53	52	51	50	51
By . . .	<u>2</u>	<u>3</u>	<u>4</u>	<u>6</u>	<u>8</u>	<u>7</u>

	(1)	(2)	(3)	(4)	(5)	(6)
Multiply	25	35	45	15	55	52
By . . .	<u>4</u>	<u>6</u>	<u>8</u>	<u>2</u>	<u>9</u>	<u>5</u>

---

LESSON LX.

ORAL EXERCISES.

1. An orchard has 6 rows of trees, and each row has 5 trees: how many trees in the orchard?

2. A recitation room contains 4 seats, and there are 5 pupils sitting on each seat: how many pupils in the room?

3. Lucy gave 5 plums to her brother, and 6 times as many to her mother: how many plums did she give to her mother?



4. If a horse travel 5 miles an hour, how many miles will he travel in 7 hours?

5. If a boat sail 5 miles an hour, how far will it sail in 10 hours?

6. Willie is 5 years old, and his father is 8 times as old as he: how old is Willie's father? How many are 8 times 5?

7. If a ladder have 5 rounds, how many rounds will 3 ladders have?

8. What will 7 lead-pencils cost, at 5 cents apiece?

9. What will 8 oranges cost, at 5 cents apiece?

10. What will 9 hats cost, at 5 dollars apiece?

11. What will 6 tables cost, at 5 dollars apiece?

---

#### WRITTEN EXERCISES.

Copy and complete these tables:

(1)	(2)	(3)	(4)	(5)
$5 \times 1 =$	$5 \times 3$	$3 \times 5$	$5 \times 4$	$5 + 5$
$5 \times 2 =$	$5 \times 5$	$5 \times 5$	$5 \times 6$	$6 + 5$
$5 \times 3 =$	$5 \times 7$	$7 \times 5$	$3 \times 7$	$8 + 5$
$5 \times 4 =$	$5 \times 2$	$2 \times 5$	$4 \times 8$	$9 + 4$
$5 \times 5 =$	$5 \times 4$	$4 \times 5$	$5 \times 8$	$7 + 5$
$5 \times 6 =$	$5 \times 3$	$3 \times 5$	$4 \times 9$	$7 + 4$
$5 \times 7 =$	$5 \times 6$	$6 \times 5$	$3 \times 9$	$4 + 5$
$5 \times 8 =$	$5 \times 8$	$8 \times 5$	$5 \times 6$	$8 + 4$
$5 \times 9 =$	$5 \times 9$	$9 \times 5$	$5 \times 9$	$6 + 4$

## LESSON LXL

## ORAL EXERCISES.

1. How many girls are once 6 girls? 2 times 6 girls? 3 times 6 girls? 4 times 6 girls?

How many are 2 times 6? 3 times 6? 4 times 6?



2. How many books in each of these rows? Twice 6 books are how many books? 3 times 6 books? 4 times 6 books? 5 times 6 books?

3. William's little book-case has 5 shelves, and on each shelf are 6 books: how many books are there in the case?

4. How many pencils are 3 times 6 pencils? 4 times 6 pencils? 5 times 6 pencils?

How many are 4 times 6? 5 times 6? 3 times 6?



5. Willie arranged his mother's spools of thread in 6 piles, by placing 6 spools in each pile: how many spools were there?

6. How many are 6 times 6 spools? 7 times 6 spools? 8 times 6 spools?

7. Six times 6 hats are how many hats? 7 times 6 hats? 8 times 6 hats?

How many are 6 times 6? 7 times 6? 8 times 6?

8. How many legs has a bird? How many has a mouse? How many has a fly?

9. If a fly has 6 legs, how many legs do 9 flies have? 10 flies?



10. How many stars are 9 times 6 stars? 10 times 6 stars?

How many are 9 times 6? 10 times 6? 8 times 6?

11. How many are 2 times 6 slates? 3 times 6 slates? 5 times 6 slates? 7 times 6 slates? 6 times 6 slates? 9 times 6 slates? 8 times 6 slates? 10 times 6 slates?



*How many are*

1 time 6?	.	.	.	.	.	.	.	.	.	.	.	6
2 times 6?	.	.	.	.	.	.	.	.	.	.	.	6 6
3 times 6?	.	.	.	.	.	.	.	.	.	.	.	6 6 6
4 times 6?	.	.	.	.	.	.	.	.	.	.	.	6 6 6 6
5 times 6?	.	.	.	.	.	.	.	.	.	.	.	6 6 6 6 6
6 times 6?	.	.	.	.	.	.	.	.	.	.	.	6 6 6 6 6 6
7 times 6?	.	.	.	.	.	.	.	.	.	.	.	6 6 6 6 6 6 6
8 times 6?	.	.	.	.	.	.	.	.	.	.	.	6 6 6 6 6 6 6 6
9 times 6?	.	.	.	.	.	.	.	.	.	.	.	6 6 6 6 6 6 6 6 6
10 times 6?	.	.	.	.	.	.	.	.	.	.	.	6 6 6 6 6 6 6 6 6 6

12. How many are 2 times 6? 5 times 6? 7 times 6? 4 times 6? 3 times 6? 8 times 6? 9 times 6? 10 times 6?

13. How many are 4 times 6? 6 times 4? 7 times 6? 6 times 3? 5 times 6? 6 times 5? 8 times 6? 6 times 6?

14. Seven times 5 are how many? 6 times 4? 5 times 3? 8 times 5? 7 times 6? 9 times 3? 8 times 6? 8 times 4?

15. How many 6's in 12? 24? 18? 30? 42?  
36? 54? 48? 60?

---

WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Multiply	6	6	6	6	6	6	6	6
By . . .	<u>4</u>	<u>6</u>	<u>5</u>	<u>7</u>	<u>2</u>	<u>8</u>	<u>3</u>	<u>9</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Multiply	4	5	7	6	3	8	2	9
By . . .	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>

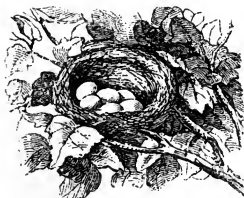
	(1)	(2)	(3)	(4)	(5)	(6)
Multiply	64	63	65	62	61	60
By . . .	<u>3</u>	<u>4</u>	<u>6</u>	<u>5</u>	<u>8</u>	<u>9</u>

	(1)	(2)	(3)	(4)	(5)	(6)
Multiply	63	64	55	65	62	41
By . . .	<u>6</u>	<u>5</u>	<u>8</u>	<u>4</u>	<u>7</u>	<u>9</u>

---

LESSON LXII.

ORAL EXERCISES.



1. Charles found 3 bird's nests, and each nest had 6 eggs in it: how many eggs did he find?

2. Mary's spelling lesson consists of 3 columns, and each column contains 6 words:

how many words in her lesson?

3. How many letters in 6 words, if each word contain 6 letters?

4. A drover bought 10 sheep, at 6 dollars a head: how many dollars did he pay for them?

5. A house has 8 windows, and each window contains 6 panes of glass: how many panes of glass in all the windows?

6. If a boat sail 6 miles an hour, how far will it sail in 9 hours? In 10 hours?

7. What will 5 sheep cost, at 6 dollars apiece?

8. What will 7 lead-pencils cost, at 6 cents apiece?

---

#### WRITTEN EXERCISES.

Copy and complete these tables:

(1)	(2)	(3)	(4)	(5)
$6 \times 1 =$	$6 \times 3$	$3 \times 6$	$4 + 5$	$9 - 3$
$6 \times 2 =$	$6 \times 2$	$2 \times 6$	$6 + 5$	$8 - 5$
$6 \times 3 =$	$6 \times 4$	$4 \times 6$	$7 + 5$	$9 - 6$
$6 \times 4 =$	$6 \times 6$	$6 \times 6$	$3 + 4$	$7 - 4$
$6 \times 5 =$	$6 \times 5$	$5 \times 6$	$8 + 4$	$6 - 3$
$6 \times 6 =$	$6 \times 8$	$8 \times 6$	$7 + 4$	$7 - 6$
$6 \times 7 =$	$6 \times 7$	$7 \times 6$	$2 + 6$	$8 - 4$
$6 \times 8 =$	$6 \times 9$	$9 \times 6$	$5 + 6$	$6 - 6$
$6 \times 9 =$	$6 \times 1$	$1 \times 6$	$4 + 6$	$9 - 5$

---

### LESSON LXIII.

#### ORAL EXERCISES.



1. How many pretty nests do you see? How many eggs in each nest? How many eggs in two nests?

2. How many are 2 times 7 eggs? 3 times 7 eggs?  
4 times 7 eggs? 5 times 7 eggs?

3. Three times 7 birds are how many birds? 4  
times 7 birds? 5 times 7 birds?

How many are 2 times 7? 3 times 7? 4 times 7?



4. How many bunches of cherries are here? How  
many cherries in each bunch? How many cherries  
are there in 4 bunches? How many cherries in all  
the bunches?

5. How many cherries are 5 times 7 cherries? 7  
times 7 cherries? 6 times 7 cherries?

6. Six times 7 peanuts are how many? 7 times 7  
peanuts are how many?

How many are 5 times 7? 6 times 7? 7 times 7?



7. This beautiful leaf will fold up like a fan. How  
many blades has it?

8. If a leaf has 7 blades, how many blades do 8  
leaves have? 9 leaves? 10 leaves?

9. How many are 8 times 7 trees? 9 times 7  
trees? 10 times 7 trees?

How many are 8 times 7? 9 times 7? 10 times 7?

10. How many are 3 times 7 men? 4 times 7  
men? 6 times 7 men? 8 times 7 men? 5 times 7  
men? 7 times 7 men? 9 times 7 men? 10 times  
7 men?

*How many are*

1 time 7?	.	.	.	.	.	.	.	.	.	7
2 times 7?	.	.	.	.	.	.	.	.	.	7 7
3 times 7?	.	.	.	.	.	.	.	.	.	7 7 7
4 times 7?	.	.	.	.	.	.	.	.	.	7 7 7 7
5 times 7?	.	.	.	.	.	.	.	.	.	7 7 7 7 7
6 times 7?	.	.	.	.	.	.	.	.	.	7 7 7 7 7 7
7 times 7?	.	.	.	.	.	.	.	.	.	7 7 7 7 7 7 7
8 times 7?	.	.	.	.	.	.	.	.	.	7 7 7 7 7 7 7 7
9 times 7?	.	.	.	.	.	.	.	.	.	7 7 7 7 7 7 7 7 7
10 times 7?	.	.	.	.	.	.	.	.	.	7 7 7 7 7 7 7 7 7 7

11. How many are 5 times 7? 3 times 7? 2 times 7? 8 times 7? 9 times 7? 10 times 7? 6 times 7? 4 times 7?

12. How many are 3 times 7? 7 times 3? 5 times 6? 6 times 5? 7 times 6? 6 times 7? 4 times 6? 6 times 4?

13. Four times 5 are how many? 4 times 4? 4 times 6? 9 times 4? 9 times 5? 9 times 7? 5 times 5? 5 times 7? 5 times 6?

14. How many 7's in 14? 21? 35? 42? 28? 56? 63? 70?

## WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Multiply	7	7	7	7	7	7	7	7
By . . .	<u>4</u>	<u>6</u>	<u>3</u>	<u>5</u>	<u>8</u>	<u>2</u>	<u>9</u>	<u>7</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Multiply	73	75	72	76	74	71	77	70
By . . .	<u>4</u>	<u>3</u>	<u>5</u>	<u>6</u>	<u>8</u>	<u>7</u>	<u>7</u>	<u>7</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Multiply	33	44	55	66	22	77	77	37
By . . .	<u>8</u>	<u>7</u>	<u>6</u>	<u>4</u>	<u>9</u>	<u>3</u>	<u>5</u>	<u>6</u>

## LESSON LXIV.

## ORAL EXERCISES.

1. There are 7 days in a week: how many days are there in 4 weeks?



2. Kate found 3 bird's nests one morning, and each nest had 7 eggs in it: how many eggs did she find?

3. There are 5 boys in a grammar class, and each boy has written 7 sentences: how many sentences have they all written?

4. If a horse trot 7 miles an hour, how far will he trot in 8 hours?

5. Kate picked 7 quarts of cherries, and sold them at 7 cents a quart: how many cents did she receive?

6. Jane is 7 years old, and her grandfather is 10 times as old as she is: how old is her grandfather?

## WRITTEN EXERCISES.

Copy and complete these tables:

(1)	(2)	(3)	(4)	(5)
$7 \times 1 =$	$7 \times 3$	$3 \times 7$	$3 + 7$	$10 - 7$
$7 \times 2 =$	$7 \times 5$	$5 \times 7$	$5 + 7$	$12 - 7$
$7 \times 3 =$	$7 \times 4$	$4 \times 7$	$4 + 7$	$11 - 7$
$7 \times 4 =$	$7 \times 6$	$6 \times 7$	$6 + 7$	$13 - 7$
$7 \times 5 =$	$7 \times 8$	$8 \times 7$	$8 + 7$	$15 - 7$
$7 \times 6 =$	$7 \times 7$	$1 \times 7$	$1 + 7$	$8 - 7$
$7 \times 7 =$	$7 \times 9$	$9 \times 7$	$9 + 7$	$16 - 7$
$7 \times 8 =$	$7 \times 2$	$2 \times 7$	$2 + 7$	$9 - 7$
$7 \times 9 =$	$7 \times 1$	$7 \times 7$	$7 + 7$	$14 - 7$

TO TEACHERS.—Explain the sign of subtraction used in the 5th example, and teach the pupil to read it *minus*, as 10 *minus* 7.

## LESSON LXV.

## ORAL EXERCISES.



1. How many clusters of grapes are 2 times 8 clusters? 3 times 8 clusters? 4 times 8 clusters?

2. How many forks are 2 times 8 forks? 3 times 8 forks? 4 times 8 forks?

How many are 2 times 8? 3 times 8? 4 times 8?



3. How many fingers has one boy? 2 boys? 4 boys? 5 boys? 6 boys?

4. Five times 8 nuts are how many nuts? 6 times 8 nuts? 7 times 8 nuts?

How many are 5 times 8? 6 times 8? 7 times 8?



5. Here is a plate with 8 apples on it. How many apples are 7 times 8 apples? 8 times 8 apples?

6. How many are 7 times 8 stars? 7 times 8 men? 8 times 8 stars? 8 times 8 men?

7. How many are 9 times 8 apples? 9 times 8 pears? 10 times 8 apples? 10 times 8 pears?

8. How many are 6 times 8? 7 times 8? 8 times 8? 9 times 8? 10 times 8?

9. Five times 8 stars are how many stars? 4 times 8 stars? 6 times 8 stars? 7 times 8 stars? 10 times 8 stars? 3 times 8 stars? 9 times 8 stars?

*How many are*

1 time 8?	. . . . .	8
2 times 8?	. . . . .	8 8
3 times 8?	. . . . .	8 8 8
4 times 8?	. . . . .	8 8 8 8
5 times 8?	. . . . .	8 8 8 8 8
6 times 8?	. . . . .	8 8 8 8 8 8
7 times 8?	. . . . .	8 8 8 8 8 8 8
8 times 8?	. . . . .	8 8 8 8 8 8 8 8
9 times 8?	. . . . .	8 8 8 8 8 8 8 8 8
10 times 8?	. . . . .	8 8 8 8 8 8 8 8 8 8

10. How many are 3 times 8? 5 times 8? 6 times 8? 7 times 8? 10 times 8? 9 times 8? 4 times 8? 2 times 8?

11. How many are 4 times 8? 8 times 4? 6 times 8? 8 times 6? 7 times 8? 8 times 7?

12. Five times 8 are how many? 8 times 5? 7 times 8? 8 times 7? 5 times 9? 9 times 5? 6 times 8? 8 times 6?

13. How many 8's in 16? 24? 40? 64? 48? 32? 72? 80?

## WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Multiply	8	8	8	8	8	8	8	8
By . . .	<u>4</u>	<u>3</u>	<u>5</u>	<u>2</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>6</u>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Multiply	4	3	5	2	7	8	9	6
By . . .	<u>8</u>	<u>8</u>	<u>8</u>	<u>8</u>	<u>8</u>	<u>8</u>	<u>8</u>	<u>8</u>
	(1)	(2)	(3)	(4)	(5)	(6)		
Multiply	82	81	83	84	86	87		
By . . .	<u>5</u>	<u>6</u>	<u>4</u>	<u>3</u>	<u>1</u>	<u>2</u>		
	(1)	(2)	(3)	(4)	(5)	(6)		
Multiply	24	26	43	36	33	25		
By . . .	<u>11</u>	<u>12</u>	<u>13</u>	<u>15</u>	<u>14</u>	<u>16</u>		

## LESSON LXVI.

## ORAL EXERCISES.

1. A railroad car has 8 wheels: how many wheels has a train of 5 cars?

2. There are 8 furlongs in a mile: how many furlongs are there in 6 miles?

3. There are 4 rows of desks in a school-room, and 8 desks in each row: how many desks in all?



4. If a cow give 8 quarts of milk in one day, how many quarts will she give in 6 days?

5. There are 8 quarts in a peck: how many quarts are there in 9 pecks? 10 pecks?

6. What will 9 vests cost, at 8 dollars apiece?

7. What will 7 clusters of grapes cost, at 8 cents a cluster?

## WRITTEN EXERCISES.

Copy and complete these tables:

(1)	(2)	(3)	(4)	(5)
$8 \times 1 =$	$8 \times 6$	$6 \times 8$	$6 + 8$	$14 - 8$
$8 \times 2 =$	$8 \times 4$	$4 \times 8$	$4 + 8$	$10 - 8$
$8 \times 3 =$	$8 \times 2$	$2 \times 8$	$2 + 8$	$12 - 8$
$8 \times 4 =$	$8 \times 1$	$1 \times 8$	$3 + 8$	$13 - 6$
$8 \times 5 =$	$8 \times 3$	$3 \times 8$	$5 + 8$	$15 - 9$
$8 \times 6 =$	$8 \times 5$	$5 \times 8$	$7 + 8$	$16 - 8$
$8 \times 7 =$	$8 \times 7$	$7 \times 8$	$9 + 8$	$17 - 9$
$8 \times 8 =$	$8 \times 9$	$9 \times 8$	$8 + 8$	$18 - 9$
$8 \times 9 =$	$8 \times 8$	$8 \times 8$	$1 + 8$	$14 - 7$

## LESSON LXVII.

## ORAL EXERCISES.



1. How many pine-apples are once 9 pine-apples? Twice 9 pine-apples? 3 times 9 pine-apples?

2. Jane picked 9 pinks, and Kate 2 times as many: how many pinks did Kate pick?

How many are 2 times 9? 3 times 9?



3. Samuel has 3 book-shelves, and 9 books on each shelf: how many books has he?

4. How many books are 3 times 9 books? 4 times 9 books? 5 times 9 books? 6 times 9 books?

5. Four times 9 cents are how many cents? 5 times 9 cents? 6 times 9 cents?

How many are 4 times 9? 5 times 9? 6 times 9?



6. Here are 8 banana trees. What long leaves they have! How many leaves are on each tree?

7. How many leaves are 7 times 9 leaves? 8 times 9 leaves? 9 times 9 leaves?

8. A fruit dealer bought 10 bunches of bananas, with 9 bananas in each bunch: how many bananas did he buy?

9. How many are 6 times 9? 7 times 9? 8 times 9? 9 times 9? 10 times 9?

10. Three times 9 caps are how many caps? 5 times 9 caps? 7 times 9 caps? 9 times 9 caps? 8 times 9 caps? 6 times 9 caps? 4 times 9 caps?

*How many are*

---

1 time 9?	.	.	.	.	.	.	.	.	.	.	.	9
2 times 9?	.	.	.	.	.	.	.	.	.	.	.	9 9
3 times 9?	.	.	.	.	.	.	.	.	.	.	.	9 9 9
4 times 9?	.	.	.	.	.	.	.	.	.	.	.	9 9 9 9
5 times 9?	.	.	.	.	.	.	.	.	.	.	.	9 9 9 9 9
6 times 9?	.	.	.	.	.	.	.	.	.	.	.	9 9 9 9 9 9
7 times 9?	.	.	.	.	.	.	.	.	.	.	.	9 9 9 9 9 9 9
8 times 9?	.	.	.	.	.	.	.	.	.	.	.	9 9 9 9 9 9 9 9
9 times 9?	.	.	.	.	.	.	.	.	.	.	.	9 9 9 9 9 9 9 9 9
10 times 9?	.	.	.	.	.	.	.	.	.	.	.	9 9 9 9 9 9 9 9 9 9

11. How many are 3 times 9? 5 times 9? 2 times 9? 8 times 9? 6 times 9? 4 times 9? 10 times 9? 7 times 9? 9 times 9?

12. How many are 4 times 9? 9 times 4? 6 times 9? 9 times 6? 5 times 9? 9 times 5? 7 times 9? 9 times 7? 8 times 9? 9 times 8?

13. Six times 7 are how many? 6 times 8? 7 times 8? 8 times 9? 8 times 4? 6 times 6? 6 times 9? 9 times 9?

14. How many 9's in 18? 27? 45? 54? 36? 63? 72? 90? 81?

#### WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Multiply	9	9	9	9	9	9	9	9	9
By . . .	<u>3</u>	<u>5</u>	<u>4</u>	<u>1</u>	<u>2</u>	<u>7</u>	<u>6</u>	<u>8</u>	<u>6</u>

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Multiply	5	4	3	6	7	2	8	9	6
By . . .	<u>9</u>	<u>9</u>	<u>9</u>	<u>9</u>	<u>9</u>	<u>9</u>	<u>9</u>	<u>9</u>	<u>9</u>

	(1)	(2)	(3)	(4)	(5)	(6)
Multiply	92	93	95	94	96	97
By . . .	<u>7</u>	<u>8</u>	<u>6</u>	<u>5</u>	<u>3</u>	<u>4</u>

	(1)	(2)	(3)	(4)	(5)	(6)
Multiply	91	93	92	94	96	95
By . . .	<u>17</u>	<u>16</u>	<u>15</u>	<u>14</u>	<u>13</u>	<u>12</u>

## LESSON LXVIII.

### ORAL EXERCISES.

1. Henry has copied 3 columns of figures on his slate, and each column contains 9 figures: how many figures has he copied in all?



2. A hunter shot 9 quails, and saw 4 times as many as he shot: how many quails did he see?

3. How many melons in 6 baskets, if each basket contain 9 melons?

4. If a window has 9 panes of glass, how many panes are there in 7 windows?

5. If one copy-book contain 9 sheets of paper, how many sheets will it take to make 10 copy-books?

6. A cow gives 9 quarts of milk a day: how many quarts of milk will she give in 8 days?

7. What will 5 hogs cost, at 9 dollars apiece?

8. What will 9 combs cost, at 9 cents apiece?

9. What will be the cost of 8 yards of muslin, at 9 cents a yard?

## WRITTEN EXERCISES.

Copy and complete these tables:

(1)	(2)	(3)	(4)	(5)
$9 \times 1 =$	$9 \times 3$	$3 \times 9$	$3 + 9$	$12 - 9$
$9 \times 2 =$	$9 \times 5$	$5 \times 9$	$5 + 9$	$14 - 9$
$9 \times 3 =$	$9 \times 7$	$7 \times 9$	$7 + 9$	$16 - 9$
$9 \times 4 =$	$9 \times 9$	$9 \times 9$	$9 + 9$	$18 - 9$
$9 \times 5 =$	$9 \times 1$	$1 \times 9$	$1 + 9$	$17 - 9$
$9 \times 6 =$	$9 \times 2$	$2 \times 9$	$2 + 9$	$16 - 9$
$9 \times 7 =$	$9 \times 6$	$4 \times 9$	$4 + 9$	$13 - 9$
$9 \times 8 =$	$9 \times 8$	$6 \times 9$	$6 + 9$	$15 - 9$
$9 \times 9 =$	$9 \times 4$	$8 \times 9$	$8 + 9$	$11 - 9$

## LESSON LXIX.

### ORAL EXERCISES.



1. How many pears are 2 times 10 pears? 3 times 10 pears? 4 times 10 pears? 5 times 10 pears?

2. How many cents are 3 times 10 cents? 5 times 10 cents? 4 times 10 cents? 2 times 10 cents?

3. How many are 2 times 10? 3 times 10? 4 times 10? 5 times 10?



4. How many are 6 times 10 shells? 7 times 10 shells? 8 times 10 shells? 9 times 10 shells? 10 times 10 shells? 5 times 10 shells?

5. Six times 10 nuts are how many nuts? 8 times

10 nuts? 7 times 10 nuts? 9 times 10 nuts? 10 times 10 nuts? 5 times 10 nuts?

6. How many are 6 times 10? 8 times 10? 9 times 10? 10 times 10?

*How many are*

1 time 10?  
2 times 10?  
3 times 10?  
4 times 10?  
5 times 10?  
6 times 10?  
7 times 10?  
8 times 10?  
9 times 10?  
10 times 10?

*How many are*

10 times 1?  
10 times 2?  
10 times 3?  
10 times 4?  
10 times 5?  
10 times 6?  
10 times 7?  
10 times 8?  
10 times 9?  
10 times 10?

7. How many are 3 times 10? 6 times 10? 5 times 10? 8 times 10? 7 times 10? 4 times 10? 9 times 10? 10 times 10?

### WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)
Multiply	25	33	14	17	20	15
By . . .	<u>22</u>	<u>22</u>	<u>22</u>	<u>33</u>	<u>34</u>	<u>25</u>

	(1)	(2)	(3)	(4)	(5)	(6)
Multiply	22	25	34	44	18	17
By . . .	<u>23</u>	<u>33</u>	<u>15</u>	<u>13</u>	<u>18</u>	<u>17</u>

## LESSON LXX.

### REVIEW.

1. How many are 2 times 5? 3 times 2? 3 times 4? 2 times 7? 4 times 5?

2. How many are 3 times 8? 6 times 5? 3 times 10? 7 times 4? 6 times 4? 7 times 5?

3. How many are 5 times 6? 4 times 7? 7 times 6? 5 times 4? 8 times 6? 8 times 7? 7 times 2? 6 times 9? 9 times 6?

4. How many are 5 times 7? 6 times 8? 10 times 6? 7 times 9? 5 times 8? 6 times 7? 10 times 7? 5 times 9? 8 times 9?

5. How many are 3 times 7? 7 times 4? 9 times 3? 6 times 5? 8 times 2? 7 times 5? 6 times 7? 7 times 8? 8 times 7? 5 times 7?

6. How many are 4 times 6? 6 times 9? 9 times 7? 8 times 5? 7 times 3? 9 times 8?

7. How many are 2 times 6? 8 times 7? 7 times 6? 9 times 9? 7 times 9? 10 times 5? 8 times 8? 7 times 10? 8 times 9?

8. How many are 2 times 2? 3 times 2? 4 times 2? 3 times 3? 5 times 2? 4 times 3? 7 times 2? 5 times 3? 4 times 4? 9 times 2?

9. How many are 8 times 4? 3 times 7? 8 times 3? 5 times 3? 9 times 3? 7 times 4? 10 times 4? 8 times 4? 6 times 4?

10. How many are 5 times 5? 9 times 4? 4 times 10? 7 times 6? 9 times 5? 8 times 6?

11. How many are 7 times 7? 10 times 5? 9 times 6? 4 times 5? 8 times 7? 5 times 9? 9 times 7? 8 times 8?

12. How many are 4 times 7? 9 times 8? 8 times 9? 9 times 7? 7 times 9? 9 times 10? 10 times 9? 10 times 10?

13. How many are 5 times 8? 7 times 8? 9 times 8? 8 times 8? 6 times 8?

## LESSON LXXI.

## REVIEW.

1. An ox has 2 horns: how many horns have 5 oxen? How many have 3 oxen? 6 oxen?



2. A bird has 2 wings: how many wings have 6 birds? 8 birds? 10 birds?

3. There are 3 seats in a stage-coach, and 3 men are sitting on each seat: how many men in the coach?

4. There are 3 feet in a yard: how many feet are there in 10 yards?

5. How many cherries in 8 bunches, if each bunch has 3 cherries?

6. If John read 4 chapters a day, how many chapters will he read in 7 days?

7. If you give 4 marbles to each of 8 boys, how many marbles will you give to all?

8. An orchard contains 4 rows of trees, and each row has 8 trees: how many trees in the orchard?

9. Edward attends school 5 days each week: how many days will he attend school in 6 weeks?

10. A stranger gave 7 boys 5 cents each: how many cents did he give to all?

11. A house has 7 windows, and each window has 8 panes of glass: how many panes of glass in the house?

12. Frank has 6 rows of blocks, and each row contains 7 blocks: how many blocks has he?



13. What will 2 bunches of grapes cost, at 8 cents a bunch? 4 bunches? 6 bunches? 3 bunches?

14. Joseph writes 10 lines each day: how many lines will he write in 6 days? In 5 days? In 7 days?

15. What will 10 slates cost, at 8 cents apiece?

16. If a man work 8 hours a day, how many hours will he work in 6 days?

17. There are 10 lines on a page of Ellen's primer, and each line contains 9 words: how many words on the page?

18. If it take 9 steps to cross a room once, how many steps will it take to cross the room 9 times?

19. A railway train runs 10 miles an hour: how many miles will it run in 9 hours?

20. An orchard contains 10 rows of trees, and each row contains 7 trees: how many trees in the orchard?

21. What will 8 loads of wood cost, at 5 dollars a load? At 3 dollars a load?

22. If a man earn 9 dollars a week, how many dollars will he earn in 7 weeks?

**Multiplication** is the process of taking a number one or more times.

The result obtained by multiplying one number by another is called the *Product*.

## LESSON LXXII.

## REVIEW.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
8	18	7	17	24	16	16	18
<u>7</u>	<u>7</u>	<u>6</u>	<u>6</u>	<u>3</u>	<u>5</u>	<u>6</u>	<u>9</u>

(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
27	36	47	38	45	34	56	27
<u>4</u>	<u>5</u>	<u>3</u>	<u>6</u>	<u>8</u>	<u>9</u>	<u>7</u>	<u>8</u>

(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
24	33	43	50	60	30	70	50
<u>12</u>	<u>13</u>	<u>15</u>	<u>16</u>	<u>14</u>	<u>28</u>	<u>17</u>	<u>18</u>

(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
23	36	44	27	36	44	55	28
<u>23</u>	<u>27</u>	<u>21</u>	<u>27</u>	<u>25</u>	<u>23</u>	<u>17</u>	<u>33</u>

(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
205	304	107	109	106	108	103	108
<u>3</u>	<u>2</u>	<u>6</u>	<u>8</u>	<u>5</u>	<u>4</u>	<u>7</u>	<u>9</u>

(41)	(42)	(43)	(44)	(45)	(46)	(47)
21	24	15	27	16	17	24
<u>30</u>	<u>40</u>	<u>50</u>	<u>20</u>	<u>60</u>	<u>40</u>	<u>30</u>

(48)	(49)	(50)	(51)	(52)	(53)	(54)
30	40	50	17	14	19	18
<u>30</u>	<u>20</u>	<u>10</u>	<u>50</u>	<u>70</u>	<u>50</u>	<u>40</u>

(55)	(56)	(57)	(58)	(59)	(60)	(61)
25	33	44	28	17	16	13
<u>20</u>	<u>30</u>	<u>20</u>	<u>30</u>	<u>50</u>	<u>60</u>	<u>70</u>

## DIVISION.

## LESSON LXXIII.



## ORAL EXERCISES.

1. Here is a gay winter scene. How many sleighs are in sight? How many times 1 sleigh are 2 sleighs?
2. How many boys are putting on their skates? How many times 1 boy are 4 boys?
3. How many boys are coasting? How many times 1 boy are 7 boys?
4. How many times is 1 sled contained in 4 sleds? 1 sled in 6 sleds? 1 sled in 7 sleds?

5. How many times is 1 skate contained in 8 skates?  
1 skate in 9 skates?

6. How many times is 1 contained in 2? 1 in 4?  
1 in 6? 1 in 8? 1 in 7? 1 in 9? 1 in 10?



*How many times*

1 are 1?  
1 are 2?  
1 are 3?  
1 are 4?  
1 are 5?  
1 are 6?  
1 are 7?  
1 are 8?  
1 are 9?  
1 are 10?

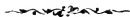
*How many times*

1 in 1?  
1 in 2?  
1 in 3?  
1 in 4?  
1 in 5?  
1 in 6?  
1 in 7?  
1 in 8?  
1 in 9?  
1 in 10?

TO TEACHERS.—These two tables should be recited together, thus: *Once 1 is 1: 1 in 1 once. Two times 1 are 2: 1 in 2 two times. Three times 1 are 3: 1 in 3 three times, etc.* The subsequent tables should be recited in the same manner.

Division is here treated as the inverse of multiplication, but it may also be derived from subtraction. 4 is contained in 12 as many times as 4 can be taken from 12.

At this point pupils may be taught the division of a material unit into halves, thirds, fourths, etc. They may also be taught to add and subtract halves, thirds, fourths, etc., and to find the fractional part of small numbers.



## LESSON LXXXIV.

### ORAL EXERCISES.

1. How many times 2 horses are 4 horses? How many times 2 sleds are 4 sleds?

2. How many persons in each sleigh? (See picture.) How many times 2 persons are 6 persons?

How many times is 2 contained in 2? 2 in 4? 2 in 6? 2 in 8?

3. How many times 2 blocks make 10 blocks? How many times are 2 blocks contained in 10 blocks?



4. How many times are 2 marbles contained in 10 marbles? 2 marbles in 12 marbles?

How many times is 2 contained in 10? 2 in 12?



5. How many times 2 grape-clusters make 14 grape-clusters? 16 grape-clusters?

6. How many times are 2 clusters contained in 14 clusters? 2 clusters in 16 clusters?

How many times is 2 contained in 14? 2 in 16?



7. How many times 2 boys make 18 boys? How many times are 2 boys contained in 18 boys?

8. How many times are 2 men contained in 18 men? 2 men in 20 men?

How many times is 2 contained in 18? 2 in 20?



*How many times*

2 are 2?  
2 are 4?  
2 are 6?  
2 are 8?  
2 are 10?  
2 are 12?  
2 are 14?  
2 are 16?  
2 are 18?  
2 are 20?

*How many times*

2 in 2?  
2 in 4?  
2 in 6?  
2 in 8?  
2 in 10?  
2 in 12?  
2 in 14?  
2 in 16?  
2 in 18?  
2 in 20?

9. How many times 2 make 4? 6? 10? 14?  
12? 16? 20? 18?

10. How many times is 2 contained in 4? 2 in 6?  
2 in 10? 2 in 8? 2 in 14? 2 in 20?

11. How many times is 2 contained in 12? 2 in  
16? 2 in 14? 2 in 18?

12. How many times is 1 contained in 8? 2 in 8?  
1 in 12? 2 in 12? 1 in 14? 2 in 14?

---

WRITTEN EXERCISES.

1. Divide 12 by 2, thus:  $2 \overline{)12}$

6 Ans.

(2)	(3)	(4)	(5)	(6)
$2 \overline{)8}$	$2 \overline{)6}$	$2 \overline{)10}$	$2 \overline{)14}$	$2 \overline{)16}$

(7)	(8)	(9)	(10)	(11)
$2 \overline{)12}$	$2 \overline{)18}$	$2 \overline{)20}$	$2 \overline{)22}$	$2 \overline{)24}$

(12)	(13)	(14)	(15)	(16)
$2 \overline{)28}$	$2 \overline{)42}$	$2 \overline{)82}$	$2 \overline{)62}$	$2 \overline{)44}$

Copy and complete:

(1)	(2)
$2 \div 2 =$	$2 \div 2 =$
$4 \div 2 =$	$6 \div 2 =$
$6 \div 2 =$	$10 \div 2 =$
$8 \div 2 =$	$14 \div 2 =$
$10 \div 2 =$	$18 \div 2 =$
$12 \div 2 =$	$8 \div 2 =$
$14 \div 2 =$	$4 \div 2 =$
$16 \div 2 =$	$12 \div 2 =$
$18 \div 2 =$	$16 \div 2 =$
$20 \div 2 =$	$20 \div 2 =$

---

LESSON LXXV.

ORAL EXERCISES.



1. How many times 3 pears make 6 pears? 9 pears? 12 pears?

2. How many times are 3 pears contained in 6 pears? 3 pears in 9 pears? 3 pears in 12 pears?

How many times is 3 contained in 6? 3 in 9?

3. How many times 3 oak leaves make 15 oak leaves? 18 oak leaves?



4. How many times are 3 acorns contained in 15 acorns? 3 acorns in 18 acorns?

How many times is 3 contained in 15? 3 in 18?

5. How many times 3 nuts make 21 nuts? 24 nuts? 27 nuts? 30 nuts?

6. How many times are 3 balls contained in 21 balls? 3 balls in 15 balls? 3 balls in 27 balls? 3 balls in 24 balls?

7. How many times are 3 cents contained in 24 cents? 3 cents in 30 cents? 3 cents in 27 cents? 3 cents in 21 cents?



*How many times*

3 are 3?  
3 are 6?  
3 are 9?  
3 are 12?  
3 are 15?  
3 are 18?  
3 are 21?  
3 are 24?  
3 are 27?  
3 are 30?

*How many times*

3 in 3?  
3 in 6?  
3 in 9?  
3 in 12?  
3 in 15?  
3 in 18?  
3 in 21?  
3 in 24?  
3 in 27?  
3 in 30?

8. How many 3's in 6? 12? 18? 24? 30?

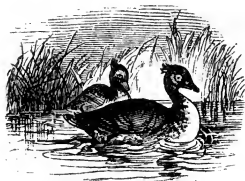
9. How many times is 3 contained in 9? 3 in 15?  
3 in 6? 3 in 12? 3 in 18? 3 in 24? 3 in 27?  
3 in 21? 3 in 30?

10. How many times is 2 contained in 12? 3 in 12? 2 in 18? 3 in 18? 2 in 16?

## LESSON LXXXVI.

## ORAL EXERCISES.

1. It takes 2 boots to make a pair: how many pair of boots will 6 boots make?



2. Two ducks make a pair: how many pair will 10 ducks make?

3. How many peaches at 2 cents each can you buy for 20 cents?

4. If John step 2 feet at a time, how many steps must he take to go 16 feet?

5. There are 3 feet in a yard: how many yards are there in 18 feet?

6. If a man walk 3 miles an hour, how many hours will it take him to walk 27 miles?

7. How many sheep at 3 dollars a head can be bought for 24 dollars?

## WRITTEN EXERCISES.

Copy and complete:

(1) 3)9	(2) 3)15	(3) 3)21	(4) 3)18
(5) 3)6	(6) 3)12	(7) 3)24	(8) 3)30
(9) 3)15	(10) 3)27	(11) 3)33	(12) 3)36
(13) 3)66	(14) 3)99	(15) 3)63	(16) 3)69

(1) $3 \div 3 =$	(2) $6 \div 3 =$
$6 \div 3 =$	$12 \div 3 =$
$9 \div 3 =$	$18 \div 3 =$
$12 \div 3 =$	$9 \div 3 =$
$15 \div 3 =$	$15 \div 3 =$
$18 \div 3 =$	$21 \div 3 =$
$21 \div 3 =$	$30 \div 3 =$
$24 \div 3 =$	$24 \div 3 =$
$27 \div 3 =$	$27 \div 3 =$
$30 \div 3 =$	$3 \div 3 =$

## LESSON LXXVII.

## ORAL EXERCISES.

1. Here are 8 rabbits in 2 groups. 8 rabbits are how many times 4 rabbits?



2. How many times are 4 ducks contained in 4 ducks? 4 ducks in 8 ducks?



3. How many times 4 quails make 12 quails? 16 quails? 20 quails?

4. How many times are 4 pigeons contained in 12 pigeons? 4 pigeons in 16 pigeons?

How many times is 4 contained in 12? 4 in 16?



5. How many times 4 keys are there in 20 keys? In 24 keys? In 28 keys?

How many times is 4 contained in 20? 4 in 24? 4 in 28?

6. How many times 4 boys make 28 boys? 32 boys? 36 boys? 40 boys?

7. How many times is 4 contained in 28? 4 in 32? 4 in 36? 4 in 40?

8. How many times are 4 pages contained in 8 pages? 4 pages in 20 pages? 4 pages in 16 pages?

4 pages in 28 pages? 4 pages in 12 pages? 4 pages in 24 pages?

*How many times*

4 are 4?

4 are 8?

4 are 12?

4 are 16?

4 are 20?

4 are 24?

4 are 28?

4 are 32?

4 are 36?

4 are 40?

*How many times*

4 in 4?

4 in 8?

4 in 12?

4 in 16?

4 in 20?

4 in 24?

4 in 28?

4 in 32?

4 in 36?

4 in 40?

9. How many times is 4 contained in 12? 4 in 16? 4 in 24? 4 in 8? 4 in 20? 4 in 28? 4 in 36? 4 in 32?

10. How many times 2 in 18? 3 in 21? 4 in 40? 2 in 20? 2 in 14? 3 in 27? 3 in 18? 4 in 16? 4 in 28? 3 in 24? 3 in 30?

## LESSON LXXVIII.

### ORAL EXERCISES.

1. If 4 girls can sit on one settee, how many settees will be required to seat 12 girls?



2. A wagon has 4 wheels: how many wagons will 16 wheels furnish?

3. Four quarts make a gallon: how many gallons are there in 32 quarts?

4. At 4 cents apiece, how many lemons can you buy for 40 cents? 32 cents?

5. If a load of wood cost 4 dollars, how many loads can be bought for 12 dollars?

6. If there be 4 trees in a row, how many rows will 36 trees make?

7. If a man can build 4 rods of fence in a day, how long will it take him to build 40 rods of fence?

8. There are 4 pecks in a bushel: how many bushels are there in 20 pecks?

### WRITTEN EXERCISES.

(1) 4) <u>12</u>	(2) 4) <u>20</u>	(3) 4) <u>16</u>	(4) 4) <u>24</u>
(5) 4) <u>8</u>	(6) 4) <u>28</u>	(7) 4) <u>36</u>	(8) 4) <u>32</u>
(9) 2) <u>44</u>	(10) 2) <u>66</u>	(11) 2) <u>88</u>	(12) 2) <u>22</u>
(13) 3) <u>36</u>	(14) 3) <u>66</u>	(15) 3) <u>99</u>	(16) 3) <u>39</u>

Copy and complete:

(1) $4 \div 4$	(2) $8 \div 4$
$8 \div 4$	$12 \div 3$
$12 \div 4$	$18 \div 2$
$16 \div 4$	$20 \div 4$
$20 \div 4$	$24 \div 3$
$24 \div 4$	$28 \div 4$
$28 \div 4$	$36 \div 4$
$32 \div 4$	$21 \div 3$
$36 \div 4$	$40 \div 4$
$40 \div 4$	$20 \div 2$

## LESSON LXXIX.

### ORAL EXERCISES.

1. How many groups of 5 tops each will 10 tops make? 15 tops?



2. Harry has 15 blocks: how many rows of 5 blocks in each will they make?

How many times is 5 contained in 5? 5 in 10? 5 in 15?

3. Charles has 25 marbles: how many groups of 5 marbles each will they make?



4. How many times are 5 marbles contained in 25 marbles? 5 marbles in 30 marbles?

How many times is 5 contained in 25? 5 in 30?



5. A violet has 5 leaves or petals: how many violets will together have 35 petals? 40 petals?

6. How many times are 5 pinks contained in 35 pinks? 5 pinks in 40 pinks? 5 pinks in 45 pinks? 5 pinks in 50 pinks?

How many times is 5 contained in 35? 5 in 40?

7. How many times are 5 cents contained in 20 cents? 5 cents in 30 cents? 5 cents in 25 cents? 5 cents in 35 cents? 5 cents in 45 cents?



*How many times*

5 are 5?  
5 are 10?  
5 are 15?  
5 are 20?  
5 are 25?  
5 are 30?  
5 are 35?  
5 are 40?  
5 are 45?  
5 are 50?

*How many times*

5 in 5?  
5 in 10?  
5 in 15?  
5 in 20?  
5 in 25?  
5 in 30?  
5 in 35?  
5 in 40?  
5 in 45?  
5 in 50?

8. How many 5's in 20? 30? 50? 45? 35? 25?

9. How many times is 5 contained in 15? 5 in 25?  
5 in 35? 5 in 40? 5 in 50? 5 in 45? 5 in 20?

## LESSON LXXX.

## ORAL EXERCISES.

1. Charles has 30 blocks: how many groups of 5 blocks each can he make from them?

2. If a squirrel eat 5 chestnuts a day, how many days will 40 chestnuts last it?

3. If a boat sail 5 miles an hour, how many hours will it take to sail 50 miles?

4. Edward goes to school 5 days each week: in how many weeks will he attend school 35 days?

5. How many oranges at 5 cents apiece can be bought for 45 cents?

6. How many hours will it take a horse to travel 25 miles, if he travel 5 miles an hour?

7. At 5 cents apiece, how many pencils can be bought for 35 cents?

8. How many times can you take 5 from 20? 4 from 32? 3 from 18? 4 from 28? 5 from 35?

## WRITTEN EXERCISES.

Copy and complete:

(1) 5) <u>15</u>	(2) 5) <u>25</u>	(3) 5) <u>30</u>	(4) 5) <u>45</u>	(1) $5 \div 5$	(2) $50 \div 5$
(5) 5) <u>10</u>	(6) 5) <u>35</u>	(7) 5) <u>40</u>	(8) 5) <u>50</u>	$10 \div 5$	$35 \div 5$
(9) 4) <u>44</u>	(10) 4) <u>88</u>	(11) 3) <u>63</u>	(12) 3) <u>69</u>	$15 \div 5$	$25 \div 5$
(13) 5) <u>55</u>	(14) 5) <u>50</u>	(15) 4) <u>48</u>	(16) 3) <u>96</u>	$20 \div 5$	$40 \div 5$
				$25 \div 5$	$36 \div 4$
				$30 \div 5$	$27 \div 3$
				$35 \div 5$	$32 \div 4$
				$40 \div 5$	$21 \div 3$
				$45 \div 5$	$24 \div 4$
				$50 \div 5$	$20 \div 5$

## LESSON LXXXI.

## ORAL EXERCISES.

1. How many times 6 bunches of cherries make 12 bunches? 18 bunches?



2. How many times are 6 plums contained in 12 plums? 6 plums in 18 plums? 6 plums in 24 plums? How many times 6 in 12? 6 in 18? 6 in 24?

3. Here are 30 books: how many shelves holding 6 books each, will they fill?



4. How many times 6 books make 30 books? 36 books? 42 books?

5. How many times 6 sheets of paper in 30 sheets? 6 sheets in 36 sheets? 6 sheets in 42 sheets?

How many times 6 in 30? 6 in 36? 6 in 42?



6. Lucy has 48 spools: how many piles will they make if she put 6 spools in each pile?

7. How many times 6 spools in 48 spools? 6 spools in 54 spools? 6 spools in 60 spools?

How many times 6 in 48? 6 in 54? 6 in 60?

8. How many times are 6 dimes contained in 18 dimes? 6 dimes in 30 dimes? 6 dimes in 42 dimes? 6 dimes in 54 dimes? 6 dimes in 48 dimes?

*How many times*

6 are 6?  
 6 are 12?  
 6 are 18?  
 6 are 24?  
 6 are 30?  
 6 are 36?  
 6 are 42?  
 6 are 48?  
 6 are 54?  
 6 are 60?

*How many times*

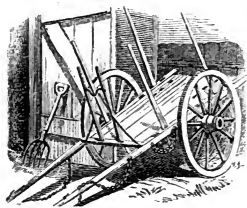
6 in 6?  
 6 in 12?  
 6 in 18?  
 6 in 24?  
 6 in 30?  
 6 in 36?  
 6 in 42?  
 6 in 48?  
 6 in 54?  
 6 in 60?

9. How many times 6 are 12? 30? 42? 54? 36?  
 10. How many times is 6 contained in 30? 6 in 24? 6 in 42? 6 in 54? 6 in 60? 6 in 48?  
 11. How many times is 4 contained in 24? 3 in 24? 6 in 24? 5 in 30? 6 in 30? 4 in 36?

## LESSON LXXXII.

### ORAL EXERCISES.

1. If a column contain 6 words, how many columns will contain 12 words?



2. If a cart have 6 stakes, how many carts will 18 stakes supply?

3. If a window contain 6 panes of glass, how many windows will contain 30 panes of glass?

4. An orchard contains 48 trees, and has 6 trees in each row: how many rows of trees in the orchard?

5. At 6 cents apiece, how many lead-pencils can be bought for 42 cents?

6. Joseph writes 6 lines a day: how many days will it take him to write 60 lines?

7. A farmer bought 48 young peach trees: how many rows will they make if he set 6 trees in a row?

8. How many sheep, at 6 dollars a head, can be bought for 54 dollars?

9. How many times can you take 5 from 25? 4 from 24? 3 from 18? 6 from 18?

### WRITTEN EXERCISES.

(1) 6) <u>12</u>	(2) 6) <u>24</u>	(3) 6) <u>36</u>	(4) 6) <u>48</u>
(5) 6) <u>54</u>	(6) 6) <u>66</u>	(7) 6) <u>90</u>	(8) 6) <u>60</u>
(9) 4) <u>48</u>	(10) 4) <u>84</u>	(11) 4) <u>88</u>	(12) 3) <u>69</u>
(13) 6) <u>72</u>	(14) 6) <u>84</u>	(15) 6) <u>96</u>	(16) 6) <u>78</u>

Copy and complete:

(1)	(2)
$6 \div 6$	$54 \div 6$
$12 \div 6$	$42 \div 6$
$18 \div 6$	$45 \div 5$
$24 \div 6$	$36 \div 4$
$30 \div 6$	$50 \div 5$
$36 \div 6$	$35 \div 5$
$42 \div 6$	$27 \div 3$
$48 \div 6$	$24 \div 4$
$54 \div 6$	$32 \div 4$
$60 \div 6$	$30 \div 5$

## LESSON LXXXIII.

### ORAL EXERCISES.



1. If each nest contain 7 eggs, how many nests will contain 14 eggs? 21 eggs?

2. How many times are 7 nuts contained in 14 nuts? 7 nuts in 21 nuts? 7 nuts in 28 nuts?

How many times 7 in 14? 7 in 21? 7 in 28?

3. This pretty leaf has 7 points. How many times 7 points make 35 points? 42 points?



4. How many times are 7 leaves contained in 35 leaves? 7 leaves in 42 leaves?

How many times is 7 contained in 35? 7 in 42?

5. Charles has 49 cherries, and he wishes to put them up in bunches of 7 cherries each to sell: how many bunches will they make?



6. How many times are 7 cherries contained in 49 cherries? 7 cherries in 56 cherries? 7 cherries in 63 cherries? 7 cherries in 70 cherries?

7. How many times is 7 contained in 49? 7 in 56? 7 in 63? 7 in 70?



*How many times*

7 are 7?  
7 are 14?  
7 are 21?  
7 are 28?  
7 are 35?  
7 are 42?  
7 are 49?  
7 are 56?  
7 are 63?  
7 are 70?

*How many times*

7 in 7?  
7 in 14?  
7 in 21?  
7 in 28?  
7 in 35?  
7 in 42?  
7 in 49?  
7 in 56?  
7 in 63?  
7 in 70?

8. How many times 7 are 14? 28? 42? 56? 49? 70?

9. How many times is 7 contained in 21? 7 in 35? 7 in 56? 7 in 28? 7 in 63? 7 in 14?

## LESSON LXXXIV.

## ORAL EXERCISES.

1. How many bunches of 7 cherries each will 14 cherries make?
2. How many quarts of milk, at 7 cents a quart, can be bought for 21 cents?
3. There are 7 days in one week: how many weeks are there in 28 days?
4. A horse travels 7 miles an hour: how many hours will it take him to travel 42 miles?
5. Frank has 35 blocks: how many rows will they make if he place 7 blocks in each row?
6. At 7 cents apiece, how many melons can be bought for 42 cents?
7. If 7 words make a line, how many lines will 70 words make? 77 words?
8. How many settees will seat 49 boys, if each settee seat 7 boys?

## WRITTEN EXERCISES.

(1) 7) <u>28</u>	(2) 7) <u>42</u>	(3) 7) <u>56</u>	(4) 7) <u>63</u>
(5) 7) <u>84</u>	(6) 7) <u>77</u>	(7) 7) <u>91</u>	(8) 7) <u>98</u>
(9) 7) <u>147</u>	(10) 7) <u>217</u>	(11) 7) <u>357</u>	(12) 7) <u>497</u>
(13) 7) <u>154</u>	(14) 7) <u>161</u>	(15) 7) <u>175</u>	(16) 7) <u>182</u>

Copy and complete:

(1) $7 \div 7$	(2) $36 \div 6$
$14 \div 7$	$48 \div 8$
$35 \div 7$	$42 \div 6$
$42 \div 7$	$45 \div 5$
$28 \div 7$	$28 \div 4$
$21 \div 7$	$30 \div 6$
$49 \div 7$	$40 \div 5$
$63 \div 7$	$27 \div 3$
$56 \div 7$	$36 \div 4$
$70 \div 7$	$54 \div 6$

## LESSON LXXXV.

## ORAL EXERCISES.

1. How many times 8 fingers make 16 fingers?  
24 fingers? 32 fingers? 40 fingers?



2. How many times are 8 trees contained in 16 trees? 8 trees in 24 trees? 8 trees in 32 trees?

3. How many times is 8 contained in 16? 8 in 24? 8 in 32? 8 in 40?



4. Here are 48 apples: how many plates will they fill if each plate hold 8 apples?

5. How many times 8 apples in 48 apples? In 56 apples? 64 apples? 72 apples? 80 apples?

*How many times*

8 are 8?  
8 are 16?  
8 are 24?  
8 are 32?  
8 are 40?  
8 are 48?  
8 are 56?  
8 are 64?  
8 are 72?  
8 are 80?

*How many times*

8 in 8?  
8 in 16?  
8 in 24?  
8 in 32?  
8 in 40?  
8 in 48?  
8 in 56?  
8 in 64?  
8 in 72?  
8 in 80?

6. How many times 8 are 16? 32? 48? 56?  
40? 64? 80? 72?

7. How many times 8 in 24? 8 in 16? 8 in 32?  
8 in 40? 8 in 56? 8 in 72? 8 in 64?

## LESSON LXXXVI.

## ORAL EXERCISES.

1. If 8 panes of glass will fill one window, how many windows will 24 panes fill?
2. If a railroad car has 8 wheels, how many cars will 40 wheels supply?
3. If a horse travel 8 miles an hour, in how many hours will it travel 56 miles?
4. How many days will it take a man to work 48 hours, if he work 8 hours a day?
5. At 8 cents apiece, how many slates can be bought for 80 cents? \_\_\_\_\_

## WRITTEN EXERCISES.

(1) 8) <u>24</u>	(2) 8) <u>40</u>	(3) 8) <u>64</u>	(4) 8) <u>72</u>	(5) 8) <u>88</u>	(6) 8) <u>96</u>	(7) 8) <u>192</u>
(8) 8) <u>120</u>	(9) 8) <u>168</u>	(10) 8) <u>248</u>	(11) 8) <u>208</u>	(12) 8) <u>272</u>	(13) 8) <u>264</u>	
(14) 7) <u>147</u>	(15) 7) <u>154</u>	(16) 7) <u>112</u>	(17) 7) <u>301</u>	(18) 7) <u>245</u>	(19) 7) <u>252</u>	

## LESSON LXXXVII.

## ORAL EXERCISES.



1. How many times 9 crowns make 18 crowns?  
27 crowns? 36 crowns? 45 crowns?

How many times is 9 contained in 27? 9 in 45?

2. Harry has gathered 54 acorns: how many piles of 9 acorns each will they make?



3. How many palm trees will bear 72 leaves, if each tree bear 9 leaves?

4. How many times are 9 nuts contained in 63 nuts? 9 nuts in 72 nuts? 9 nuts in 81 nuts?

How many times

9 are 9?  
9 are 18?  
9 are 27?  
9 are 36?  
9 are 45?  
9 are 54?  
9 are 63?  
9 are 72?  
9 are 81?  
9 are 90?

How many times

9 in 9?  
9 in 18?  
9 in 27?  
9 in 36?  
9 in 45?  
9 in 54?  
9 in 63?  
9 in 72?  
9 in 81?  
9 in 90?

5. How many times 9 are 18? 36? 27? 72? 63? 54? 45? 81?

6. How many times is 9 contained in 27? 9 in 45? 9 in 81? 9 in 36? 9 in 54? 9 in 63?

How many times

10 are 10?  
10 are 20?  
10 are 30?  
10 are 40?  
10 are 50?  
10 are 60?  
10 are 70?  
10 are 80?  
10 are 90?  
10 are 100?

How many times

10 in 10?  
10 in 20?  
10 in 30?  
10 in 40?  
10 in 50?  
10 in 60?  
10 in 70?  
10 in 80?  
10 in 90?  
10 in 100?

7. How many times is 10 contained in 70? 10 in 50? 10 in 80? 10 in 60? 10 in 90?

**LESSON LXXXVIII.**

## ORAL EXERCISES.

1. If a copy-book contain 9 sheets of paper, how many copy-books will 27 sheets of paper make?
2. If 9 words fill a line, how many lines will 45 words fill? 36 words?
3. If a train of cars run 9 miles an hour, in how many hours will it run 90 miles?
4. If 9 melons fill a basket, how many baskets will 63 melons fill?
5. If a pupil write 9 lines a day, how many days will it take him to write 54 lines?

## WRITTEN EXERCISES.

(1) 9) <u>54</u>	(2) 9) <u>72</u>	(3) 9) <u>81</u>	(4) 9) <u>45</u>	(5) 9) <u>90</u>	(6) 9) <u>108</u>	(7) 9) <u>117</u>
(8) 9) <u>180</u>	(9) 9) <u>288</u>	(10) 9) <u>225</u>	(11) 9) <u>396</u>	(12) 9) <u>549</u>		
(13) 10) <u>70</u>	(14) 10) <u>90</u>	(15) 10) <u>60</u>	(16) 10) <u>200</u>	(17) 10) <u>500</u>	(18) 10) <u>400</u>	
(19) 10) <u>250</u>	(20) 10) <u>360</u>	(21) 10) <u>480</u>	(22) 10) <u>570</u>	(23) 10) <u>430</u>	(24) 10) <u>270</u>	

**LESSON LXXXIX.**

## REVIEW.

1. There are 3 feet in a yard: how many yards are there in 30 feet?
2. If Mary read 4 chapters a day, in how many days will she read 32 chapters?

3. There are 7 days in a week: how many weeks are there in 70 days?

4. Willis picked 72 cherries, and tied them up in bunches of 8 cherries each: how many bunches did they make?

5. There are 8 quarts in a peck: how many pecks are there in 56 quarts?

6. At 9 cents a bushel, how many bushels of coal can be bought for 90 cents?

7. If a steamer sail 9 miles an hour, how long will it be in sailing 63 miles?

8. At 10 dollars a barrel, how many barrels of flour can be bought for 70 dollars?

**Division** is the process of finding how many times one number is contained in another.

The result obtained by dividing one number by another is called the *Quotient*.

---

#### WRITTEN EXERCISES.

(1) 2) <u>118</u>	(2) 2) <u>676</u>	(3) 3) <u>588</u>	(4) 3) <u>231</u>	(5) 4) <u>872</u>	(6) 4) <u>804</u>
(7) 5) <u>450</u>	(8) 5) <u>665</u>	(9) 5) <u>725</u>	(10) 6) <u>174</u>	(11) 6) <u>906</u>	(12) 6) <u>474</u>
(13) 7) <u>231</u>	(14) 7) <u>266</u>	(15) 7) <u>476</u>	(16) 7) <u>189</u>	(17) 7) <u>329</u>	(18) 7) <u>840</u>
(19) 8) <u>272</u>	(20) 8) <u>408</u>	(21) 8) <u>512</u>	(22) 8) <u>328</u>	(23) 8) <u>504</u>	(24) 8) <u>960</u>
(25) 9) <u>279</u>	(26) 9) <u>396</u>	(27) 9) <u>477</u>	(28) 9) <u>648</u>	(29) 9) <u>864</u>	(30) 9) <u>387</u>

# GENERAL REVIEW.

## LESSON XC.

### ORAL EXERCISES.

Study and recite these examples across the page, thus: 2 and 7 are 9; 2 from 9 leaves 7; 2 times 7 are 14; 2 in 14, 7 times.

1. 2 and 7? 2 from 9? 2 times 7? 2 in 14?
2. 3 and 9? 3 from 12? 3 times 9? 3 in 27?
3. 4 and 8? 4 from 12? 4 times 8? 4 in 32?
4. 5 and 7? 5 from 12? 5 times 7? 5 in 35?
5. 6 and 9? 6 from 15? 6 times 9? 6 in 54?
6. 7 and 8? 7 from 15? 7 times 8? 7 in 56?
7. 7 and 4? 7 from 11? 7 times 4? 7 in 28?
8. 8 and 6? 8 from 14? 8 times 6? 8 in 48?
9. 8 and 7? 8 from 15? 8 times 7? 8 in 56?
10. 9 and 5? 9 from 14? 9 times 5? 9 in 45?
11. 9 and 7? 9 from 16? 9 times 7? 9 in 63?

### WRITTEN EXERCISES.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	2	24	48	64	121	135	233	450
	3	35	64	43	132	144	246	108
	4	46	77	57	140	155	328	200
	5	55	39	46	135	166	344	306
	6	24	48	68	124	177	422	437
	7	43	56	39	155	188	346	330
	8	66	66	47	166	199	166	149
Add	9	27	44	84	143	145	222	128

	(9)	(10)	(11)	(12)	(13)	(14)	(15)
From	407	564	640	702	506	547	603
Take	289	347	518	486	389	388	486

	(16)	(17)	(18)	(19)	(20)	(21)
Multiply	270	345	383	209	460	244
By . . .	<u>3</u>	<u>6</u>	<u>4</u>	<u>6</u>	<u>5</u>	<u>7</u>
Divide:	(22)	(23)	(24)	(25)	(26)	(27)
	3) <u>408</u>	4) <u>760</u>	5) <u>565</u>	6) <u>876</u>	7) <u>945</u>	8) <u>904</u>

## LESSON XCI.

### ORAL EXERCISES.

- 2 and 9? 2 from 11? 2 times 9? 2 in 18?
- 3 and 8? 3 from 11? 3 times 8? 3 in 24?
- 4 and 7? 4 from 11? 4 times 7? 4 in 28?
- 5 and 9? 5 from 14? 5 times 9? 5 in 45?
- 6 and 8? 6 from 14? 6 times 8? 6 in 48?
- 6 and 7? 6 from 13? 6 times 7? 6 in 42?
- 7 and 9? 7 from 16? 7 times 9? 7 in 63?
- 8 and 6? 8 from 14? 8 times 6? 8 in 48?
- 9 and 8? 9 from 17? 9 times 8? 9 in 72?
- 9 and 9? 9 from 18? 9 times 9? 9 in 81?

### WRITTEN EXERCISES.

- Add 234, 275, 366, and 484.
- Add 244, 412, 561, 308, and 445.
- Add 327, 303, 482, 206, 409, and 292.
- From 865 subtract 336.
- From 642 subtract 516.
- From 736 subtract 345.
- Multiply 241 by 4, and 5.
- Multiply 165 by 3, 4, and 6.
- Multiply 250 by 4, 5, and 6.
- Divide 248 by 2, 4, and 8.

11. Divide 512 by 4, 8, and 2.
12. Divide 864 by 3, 6, and 9.
13. Divide 492 by 3, 4, and 6.
14. What is the sum of 486 and 237?
15. What is the difference between 486 and 237?
16. What is the product of 348 multiplied by 6?
17. What is the quotient of 348 divided by 6?



## LESSON XCII.

### ORAL EXERCISES.

1. William bought 8 marbles, and Edward gave him 6: how many marbles had he then?
2. A cooper made 15 barrels, and sold 7 of them: how many had he left?
3. Sarah found 12 eggs, and Kate found 9: how many eggs did both find?
4. Albert has 21 plums: if he give 8 of them to Alice, how many plums will he have left?
5. There are 7 days in a week: how many days are there in 9 weeks?
6. There are 8 quarts in one peck: how many quarts in 10 pecks? In 8 pecks?
7. If a man earn 8 dollars a week, in how many weeks will he earn 64 dollars?
8. If a cord of wood cost 5 dollars, how many cords can you buy for 35 dollars?
9. How long will it take a steamer to run 90 miles at the rate of 9 miles an hour?

## WRITTEN EXERCISES.

1. There are 267 boys, and 289 girls in a school : how many pupils in the school?

2. A drover bought 564 sheep, and sold 288 of them : how many had he left?

3. A merchant had 408 yards of cloth, and sold 184 yards : how many yards had he left?

4. There are 338 apples on one tree, 467 apples on another, and 169 apples on another : how many apples on all the trees?

5. A miller made 467 barrels of flour, and sold 237 of them : how many barrels remain unsold?

6. There are 320 rods in a mile : how many rods are there in 3 miles?

7. If a steamship can sail 290 miles in a day, how far can it sail in 6 days?

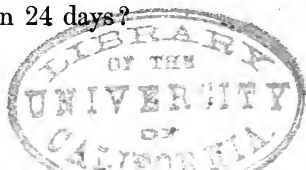
8. There are 7 days in a week : how many weeks are there in 427 days?

9. If 3 bushels of apples will fill a barrel, how many barrels will 468 bushels fill?

10. A farmer bought 26 cows at 18 dollars a head : how much did they cost?

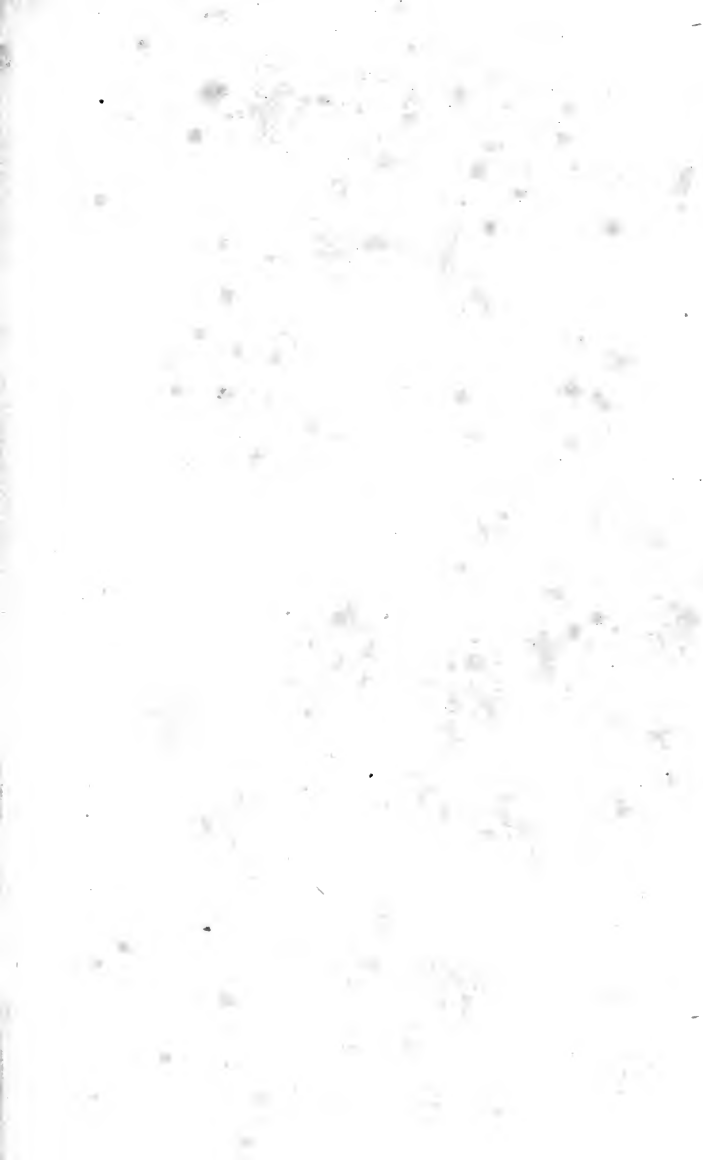
11. If a man build 8 rods of fence in a day, in how many days will he build 464 rods?

12. If a man can walk 28 miles a day, how far can he walk in 24 days?











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